EFFECTIVENESS OF EMOTIONAL FREEDOM TECHNIQUE ON POSTPARTUM BLUE AMONG POST CAESAREAN SECTION MOTHERS AT SELECTED HOSPITALS, ERODE

A DISSERTATION SUBMITTED TO THE TAMILNADU Dr.M.G.R MEDICAL UNIVERSITY, CHENNAI, IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF AWARD OF

MASTER OF SCIENCE IN NURSING

OBSTETRIC AND GYNAECOLOGICAL NURSING

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EXAMINERS,

1. ……..

2. ……..

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“Gratitude is not only the memory but also the respect of heart rendered to the person for his / her guidance and goodness”.

“Fear thou not; I am with thee; be not dismayed; for I am thy god; I will strengthen thee; yea, I will help thee; yea, I will uphold thee with the right hand of my righteousness”.

Isaiah 41: 10

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BY

30109022

LIST OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ANNEXURES

CHAPTER - I

INTRODUCTION

"We cannot change the directions of the wind, but we can adjust our sails".

(Proverb)

Motherhood has true nobility and unique capacities. Pregnancy and childbirth are special events in women's life. This can be a time of great hope and joyful anticipation. It can also be a time of fear and suffering. Child birth is viewed an important life event. It is natural, normal, physiological phenomena and one of the events which introduces new experiences in a women's reproductive life. The post- partum period is often a stressful time physically and emotionally for the new parents, **(Shally, 2001).**

Caesarean Section is an operative procedure whereby the fetuses after the end of 28th week are delivered through an incision on the abdominal and uterine walls. The incidence of caesarean section is steadily rising. During the last decade there has been two to three fold rises in the incidence from the initial rate of about 10 %, **(Dutta.D.C, 2004).**

In world about 10% of all deliveries these days are conducted through caesarian section, In recent years the Caesarean Section rate has raised to a record level of 46% in China and to levels of 25% and above in many Asian countries, and the USA. Currently, in Spain, 1 in 4 births are occurred by cesarean section, Caesarean section rates are high and continue to rise in developed countries. A cesarean delivery rate in South America, the median

rate was 33% with rates fluctuating between 28% and 75%,**(Althabe and Beliza, Jeremy A. Lauer, 2010)**.

A Cesarean Section rate in India is 7.1 per cent in the year 1998. The 'South' region of India has the highest caesarean section rate. In India the Christians have highest caesarean rate. The urban cesarean rate is double than the rural rate for the states like West Bengal and Assam. Andhra Pradesh has the highest rural CS rate of 26.60 and West Bengal has the highest CS rate of 32.50 for the urban regions. Nearly one in every two births in China are delivered by C-section, the rate is around two in five in Thailand and nearly one in five in India, **(World Health Organization 2008)**.

The most common reason that a cesarean section is performed 35% of all cases is the woman has had previous cesarean section and 30% of all cases are difficult child birth due to non- progressive labour. Another 12% of C-sections are performed to deliver a baby in a breech presentation (buttocks or feet first). Breech presentation is found in about 3% of all births. In 9% of all cases, C-sections are performed in response to fetal distress, which refers to any situation that threatens the baby such as the umbilical cord wrapped around the baby's neck. The remaining 14% of C-sections are indicated by other serious factors, **(Glazener et al, 1995)**.

Pregnancy and puerperium are highly stressful periods in a woman's life. The person is threatened by various changes such as physiological changes and endocrine changes occurring in one's body , as she is in reorganization of psyche in accordance with the new mother role especially in the first

pregnancy. Body image changes and unconscious intra -psychic conflicts related to pregnancy, child birth, and mother hood become activated. It is no wonder that 25% to 50% of the pregnant women develop mild psychological symptoms in the puerperal period. The commonest type is the mild depression and irritability known as the postnatal Blues. A post-partum blue is characterized by feelings of anxiety, tearfulness, irritation, and restlessness, **(Hein Roth 2006)**.

Sreevani. R, (2006), reported that 16% of mothers develop mental illness in the puerperium; the risk of mental illness during puerperium is greater than at other times in the women's reproductive life. Many factors are associated with puerperal mental illness such as lack of confiding relationship and support, marital tension, socio economic problems and a previous psychiatric history. Puerperal mental illnesses are postpartum blue, postnatal depression and puerperal psychosis.

The exact cause of baby blues is unknown, experts believe that the drastic hormonal changes experienced after giving birth can lead to this condition. Production of estrogen, progesterone and endorphins drop drastically, causing the body to go into a withdrawal. Some studies suggest that thyroid dysfunction can also impact this condition. Additionally, sleep deprivation due to the infant's sleeping patterns may exacerbate symptoms. Baby blues are more likely to become postpartum depression if you have a stressful life or marriage, experience a difficult labor or pregnancy, suffer from

severe pre-menstrual syndrome, or have previous tendencies toward depression, **(Jessica Ellis, 2011)**.

Women experience the blues when their support systems become less available after the first few days or weeks. The new mom, especially a single mom or a mom who has had a cesarean, can feel that she has no time to care for her own physical and emotional needs. Some mothers wonder how they are going to get everything done and if they can protect and care for such a vulnerable little creature. They become frightened at the strong contradictory emotions they feel. Support and assistance from your partner, family or friends is vital. It can mean the difference between significant improvement and sliding deeper into true depression. Early studies found that the postpartum blues occur in 50% to 75% of new mothers, **(Beck, CT, 2006).**

Postpartum blue occurs in 10 to 15 out of every 100 women who have a cesarean delivery. Postnatal blues affect 50 -80 % of new mothers. One out of eight postnatal women may experience blue in their life time it affects 11.5 million people every year and approximately 15% of the patients commit suicide, **(American Psychiatric Association, Henshaw.S, 2006)**.

"Postnatal Blues is an insidious vacuum that crawls into your brain and pushes your mind out of the way. It is the complete absence of rational thought….It isn't possible to roll over in Bed because Blues steals away whoever you were, prevents you from seeing who you might someday be and replaces your life with a back hole",**(David Karp, 1999)**.

Most women experience some degree of the baby blues after childbirth. Women often feel exhausted, overwhelmed and anxious instead of the joy they expected to feel. The symptoms of baby blues are mild and include sadness, weeping, moodiness, difficulty sleeping, changes in appetite and problems concentrating. The baby blues often appear a few days after childbirth and usually last for a few days to a couple of weeks. The baby blues are probably caused in part by hormonal changes. Hormones return to normal within a week or two and the new mother begins to feel better,**(Gail Sessoms, 2011)**.

All the studies said that the severe psychological problem that occurs during the postpartum period is mainly due to maternal (or) postpartum blues. The postpartum blues is the main cause to postpartum depression and psychosis. If the postpartum blues is identified earlier and treated properly the severe complications of postpartum psychosis and depression can be prevented, (**Badar S Ali, 2009).**

An estimated 80% of all mothers will experience mild depression a few days after giving birth. Two out of every three new mothers will suffer from the baby blues. Baby blue symptoms consist of crying, fatigue, insomnia, irritability, lack of feeling for the baby and confusion. All of these are probably the result of a major drop in blood hormone levels after giving birth. The baby blues usually resolves in a couple of weeks. However, if it lingers and intensifies, it may develop into postpartum depression, which affects as many 20% of women who give birth. It can develop up to a year after a child's birth.

Common risk factors of postpartum blue are, Women with a previous mental illness or family history of mood disorders, Women with inadequate support systems, Women who experienced a complicated pregnancy or birth, Women who have difficult or fussy babies, Women with an unsatisfactory relationship with their significant other, **(Celeste E. Williams, 2001).**

Emotional Freedom Techniques (EFT) is a form of alternative psychotherapy that uses tapping on acupuncture points while a patient focuses on a specific traumatic memory. EFT is a unique and effective healing medium that can provide relief, comfort and help for mothers experiencing postnatal blue and depression, **(Wikipedia, 2010)**.

Emotional Freedom Technique has become a popular solution to cure postpartum blues and depression. This is an alternative psychotherapy technique that is used on many women that are suffering with the condition and have tried many other natural remedies, including diet changes and getting enough sleep to cope with the next day,**(Andrew Wilkie, 2011)**.

Emotional Freedom Technique (EFT) is most often used as a means of handling negative emotions; EFT combines acupressure with verbal affirmations to change your emotional state. EFT is a unique and effective healing medium that can provide relief, comfort and help for mothers experiencing postnatal blue, and the distress it can cause. It is a safe method of treatment that does not interfere with any medications or other underlying medical conditions.EFT is a safe, gentle, noninvasive technique that can be

used along with any medical treatment or other self-help method, **(Deepak chopra, 2009)**.

"Emotional Freedom Techniques have been clinically effective, when properly applied, in over 80% of cases EFT recipients and practitioners achieve either noticeable improvement or complete cessation of the problem", **(Rosen, G.; Tolin, D, 2000)**.

NEED FOR STUDY

Despair beyond despair is postnatal blues. (Kaila, 2006)

Maternal mental health problems pose a huge human, social and economic burden to women, their infants, their families, society and constitute a major public health challenge. Pregnancy and puerperium are highly stressful periods in a women's life. The person is threatened by physical changes and psychological changes occurring in one's body, recognition of psyche in accordance with the new mother role especially in the first pregnancy, childbirth and motherhood becomes activated,**(Niraj Ahuja.KP, 2002)**.

The postpartum recovery period is usually longer and hospitalization is longer with cesarean births. Physiological concerns of women after cesarean birth may include fatigue, activity intolerance and incisional problems, **(Breslin. T.E, 2003)**.

The World Health Organization (2004), reported that the rate of cesarean section in a developed countries are 10- 15% of all birth, the Caesarean rate was about 20% in the United Kingdom.23% in USA, Brazil (36%), Italy (22.4%), Sweden (11.9%), Taiwan (32- 34%), Netherland (9.5%) and Wales (24.2%).

In 2001 an estimated 21.4% of all deliveries in England and Wales were by CS, a fivefold increase since 1971, in 2002, more than one-fourth of all births (26.1%) in United States were CS deliveries a highest ever reported rate, in 2004, rate of CS births for first pregnancies increased to 29.1% of all births, continuing a rising trend. Since 1996, CS deliveries have increased by more than 40%, while the hospital CS rate is 22% in Egypt, CS epidemic observed in Latin American countries is not yet evident in most of the Arab countries where CS rate ranges between 5-15%, the rising trend in CS is definitely not limited to USA and UK. In Brazil, there are hospitals with 100% CS rate, health districts with 85% CS rate, and an entire state with a CS rate of 47.7%,The Brazilian Ministry of Health has imposed upper limit of CS rate at 35% in public hospitals while private sector rates of 70% and more are common in the country. In Delhi, CS rate in teaching hospitals currently ranges between 19-35%. In Sweden, Denmark and Netherlands, the CS rate is still close to 10% with some of the world's lowest maternal and perinatal mortality rates,**(Mukherjee.SN, 2006)**.

In United States the cesarean deliveries performed nearly one of every four babies delivered, more than 900,000 babies each year. The procedure is

often used in cases where the mother has had a previous C-section. More than 30 percent of births in the United States occur by cesarean delivery,**(Belizan et al. 1999)**.

In India, the prevalence of cesarean section has increased from 5- 20%, 1.9%- 16% in Mumbai, and 1.7% in Kerala, the prevalence of caesarean section is very high (34.4%) in Delhi. Over the last 20 years there has been a disturbing increase in the rate of Caesarean sections in India, **(Bhasin.SK, 2007, Padmadass. et al, 2000, Gita arjun, 2008)**.

Postpartum blues is described as "a thief that steals the mother hood" without clinical intervention, postpartum blues can have long lasting implications for both the mother and child. The prevalence of postpartum blues among women one to four days after birth in population based surveys was 15% to 18%. Subsequent studies found very similar prevalence's,**(Lumley, J., Balzac, HD., 2005)**.

Watanebe M. et. al., (2007), has done a study among Japanese women to show that maternal blues is a useful factor for predicting postpartum depression. The prevalence of postpartum depression was 12.8%. a stein's blue scale of eight or above was significantly associated with postnatal depression. Likelihood ratios (95% CI) for the stein's blue scale of 0 to 3, 4 to 7, 8 –11 and 12 or more were 0.33 (0.16 – 0.65) and 9.57 (3.41 – 26.86) respectively. These findings suggest that maternity blues is a strong predictor of postpartum

depression. The higher the blues score, the higher the risk of postpartum depression.

Adewuya, Adiodum Olugbenga conducted the study in the year 2005 to investigate the prevalence of maternity blues and examine the risk factor involved in a group of Nigerian postpartum women. The prevalence of maternity blues was 31.3% and the symptoms peaked at the 5th postpartum. The predictors of maternity blues includes significant mood change during the pregnancy (OR 3.17, 95%) past admission during pregnancy (OR 3.21, 95%) female baby (OR 2.82, 95%) and single mothers (OR 3.35, 95%).The prevalence and the significant risk factors for maternity blues seen to differ across culture. Obstetricians and midwives have to consider this in strategies for prevention and management of postpartum depression in new mothers in this environment, **(Adewuya, 2005).**

Globally the prevalence of baby blues is as high as 80% of the new mothers. The prevalence of maternity blues in Turkish women was 13.1%. Postpartum blues affects 10% to 20% of the women in the developed countries and negatively influences maternal, infant and family health. Two out of three mothers undergo the baby blues, a feeling of letdown after the emotional experience of child birth, **(Daftary, S, Lazarus, J**. **Department of mental health New York, 2006).**

Baby blues is a condition experienced by 75-80% of new mothers. Mood swings, feelings of sadness or numbness and loss of appetite are

considered normal within the first ten days after giving birth. If baby blues continue or worsen after the first two weeks, however, the condition may be considered postpartum depression, which is medically serious and may require treatment such as therapy or medication, **(Jessica Ellis, 2011)**.

More than 25,000 Australian mothers who suffer from postnatal blue every year According to the National Health and Medical Research Council, almost one in seven new mums suffers a debilitating depressive illness following the birth of their baby, which can last for years if not treated properly. First time moms who have a C-section that were expecting a vaginal birth sometimes suffer postpartum depression to a greater degree, simply because they feel deprived of the natural birth experience. There is no hard data that shows that C-section moms will suffer a greater degree of depression but it does sometimes happen, (**Ozdemir. H, 2005).**

Baby blues is the most common of all postpartum disorders. up to 80% of new mothers will suffer from a letdown of some sort beginning on the 3rd or 4th day after delivery. The Baby Blues in America, about 50% to 80% of new mothers experience a mild, self-limited period of depression, anxiety, and emotional reactivity called the postpartum blues. This usually occurs about three to five days after delivery, **(Carol E, 2010)**.

H. Chen, F. Chang (2003), examined the effectiveness of acupressure for controlling post-cesarean section (CS) symptoms, such as nausea and vomiting, anxiety perception and pain perception. A total of 104 eligible participants

were recruited by convenience sampling of operating schedules at two hospitals. Participants assigned to the experimental group received acupressure, and those assigned to the control group received only postoperative nursing instruction. The experimental group received three acupressure treatments before CS and within the first 24 hours after CS. The first treatment was performed the night before CS, the second was performed 2-4 hours after CS, and the third was performed 8-10 hours after CS. The measures included the Rhodes Index of Nausea and Vomiting, Visual Analog Scale for Anxiety, State-Trait Anxiety Inventory, and Visual Analog Scale for Pain, and physiologic indices. Statistical methods included percentages, mean value with standard deviation, t test and repeated measure ANOVA. The use of acupressure reduced the incidence of nausea, vomiting or retching from 69.3% to 53.9%, compared with control group (95% confidence interval = 1.65-0.11; p = 0.040) 2-4 hours after CS and from 36.2% to 15.4% compared with control group (95% confidence interval = 0.59-0.02; p = 0.024) 8-10 hours after CS. Results indicated that the experimental group had significantly lower anxiety and pain perception of cesarean experiences than the control group. Significant differences were found in all physiologic indices between the two groups. In conclusion, the utilization of acupressure treatment to promote the comfort of women during cesarean delivery is strongly recommended.

The effectiveness of the Emotional Freedom Technique (EFT), a treatment for anxiety and fear, was assessed. One hundred nineteen university students(Okanagan University College, Canada) were assigned and tested in an

independent four-group design. The groups differed in the treatment each received: applied treatment of EFT (Group EFT); a placebo treatment (Group P); a modeling treatment (Group M); and a control (Group C). Participants' self-reported baseline and post-treatment ratings of fear were measured. Group EFT showed a significant decrease in self-report measures at post-treatment. However, Group P and Group M showed a similar significant decrease. Group C did not show a significant decrease in post-treatment fear ratings, **(Wendy L. Waite, Mark D. Holder, 2001)**.

The researcher is very interested to take this topic because the Postpartum blue occurs in 10 to 15 out of every 100 women who have a cesarean delivery. And also EFT will cure the many of the symptoms of postpartum blue.

STATEMENT OF PROBLEM

EFFECTIVENESS OF EMOTIONAL FREEDOM TECHNIQUE ON POSTPARTUM BLUE AMONG POST CESAREAN SECTION MOTHERS AT SELECTED HOSPITALS, ERODE.

OBJECTIVES

1. To assess the level of postpartum blue among control and experimental groups of post cesarean section mothers before and after emotional freedom technique.

2. To compare the effectiveness of emotional freedom technique on postpartum blue among control and experimental groups of post cesarean section mothers.

3. To find out the association between posttest scores of postpartum blue among control and experimental groups of post cesarean section mothers with their demographic variables.

OPERATIONAL DEFINITIONS

EFFECTIVENESS

It refers to reduction of postpartum blue symptoms among post cesarean section mothers as determined by significant difference between post test scores of control group and experimental group.

EMOTIONAL FREEDOM TECHNIQUE

Emotional freedom technique refers to tapping on acupuncture points (karate chop, inner eye brow, side of eye, under eye, under nose, chin, collarbone, under arm, wrist, and crown) for the duration of 30 minutes,once a day for 5 days. Allow the patient to verbalize their negative and positive thoughts during tapping.(In the 30 minutes first15 minutes for negative thoughts and next 15 minutes for positive thoughts).

POSTPARTUM BLUE

Postpartumblue symptoms are feelings of anxiety, tearfulness, irritation, and restlessness among post cesarean section mothers, which is measured by, Likert, Am I blue? Assessment scale.

POST CESAREAN SECTION MOTHER

Mother who delivered a baby through caesarean section and admitted in postoperative ward from the 3rd day of delivery to 7th day.

SELECTED HOSPITALS

TPN Hospital and Government Head Quarters Hospital, Erode.

HYPOTHESES

H_1: There is a significant level of postpartum blue among control and experimental groups of post cesarean section mothers before and after emotional freedom technique.

H_2: There is a significant effectiveness of emotional freedom technique on postpartum blue among post cesarean section mother in experimental group than control group.

H_3: There is a significant association between post test scores of postpartum blue among experimental and control groups of post cesarean section mothers with their demographic variables.

DELIMITATION

This study was delimited to,

- Assess the effectiveness of Emotional Freedom Technique.
- Identify the changes in postpartum blue symptoms
- Post cesarean section mothers.
- TPN hospital and Government Head Quarters Hospital, Erode.

CONCEPTUAL FRAMEWORK

Conceptual framework provides clear description of variables suggesting ways or methods to conduct the study and guiding the interpretation, evaluation and integration of study findings, **(wood and Haber, 1994).**

The conceptual frame work is the device that helps to stimulate research and the extension of the knowledge by providing direction and impetus, **(Polit and hungler, 2004)**

The conceptual model selected for this study is based Mercer's theory in maternal role attainment.

The focus of mercer's work dealt with role attainment from the point of the acceptance of the pregnancy to one month postpartum. To measure maternal self- concept, personality integration, personality disorders, maternal behavior and perception of the birth experience.

The **maternal role attainment theory** developed by Ramona T. Mercer (1979),

Maternal role attainment is a process that follows four stages of role acquisition,

- Anticipatory
- Formal
- Informal

- Personal

Anticipatory

It begins social and psychological adjustment to the role. The mother fantasizes about the role, relates to the fetus in utero, and begins role play.

The mother's anticipation regarding the fetus is affected by various factors like, hormone, family functioning, support of family, and mother-father relationship.

Formal

It begins with assumption of the role at birth; role behaviours are guided by formal, consensual expectations of others in the mother's social system.

Mother's role is disturbed by support of family members, family history of mental illness, type of marriage, type of family.

Informal

It begins as mother develops unique ways of dealing with the role not conveyed by the social system.

The mother develops postpartum blue when the adequate support and guidance is not provided from the support system.

Personal

The mother experiences a sense of harmony, confidence and competence in the way she performs the role; maternal role is achieved.

After EFT the mother reflects the adaptive responses in caring the child with mild anxiety.

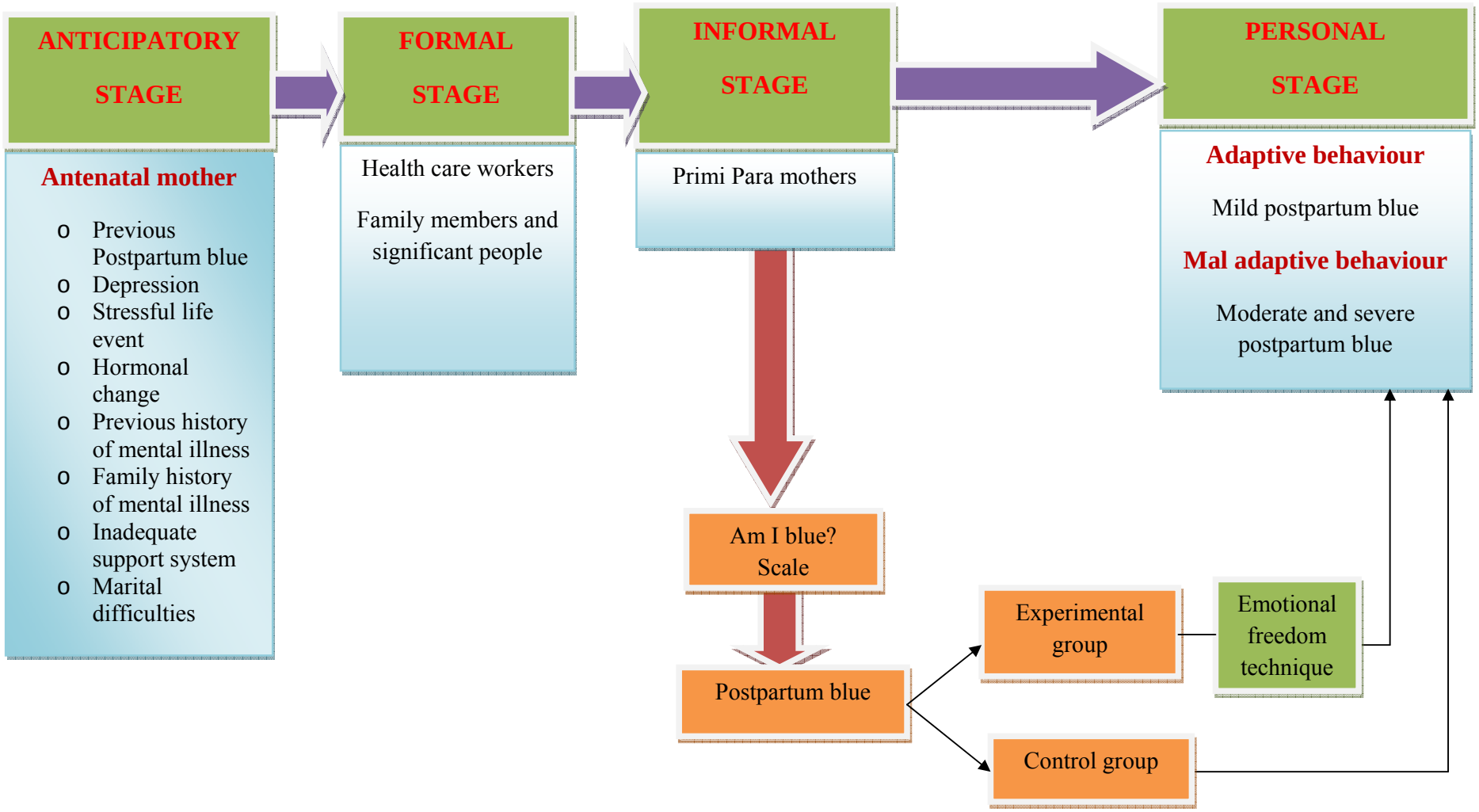


Fig 1:1 Conceptual frame work based on Mercer's Maternal Role Attainment Theory

CHAPTER II

REVIEW OF LITERATURE

The review of literature is a broad, comprehensive, in depth, systematic and critical review of scholarly publication, unpublished scholarly print materials audiovisual material and personal communication.

A literature review is a written summary of the state of existing knowledge on a research problem. The task of reviewing research literature involves the identification, selection, critical analysis and written description of existing information on a topic, (Polit and Hungler, 1999).

The review of literature in this study is organized under following headings;

1. Studies related to postpartum blue
2. Studies related to Emotional freedom technique
3. Studies related to complimentary therapies on postpartum blue
4. Studies related to Emotional freedom technique on postpartum blue.

1. STUDIES RELATED TO POSTPARTUM BLUE

Mrs. S. Rajamani Victor et. al., (2008), conducted a study on effectiveness of prophylactic information on maternal adjustment in term of post natal blues, among the post natal mothers admitted at Government Rajaji hospital, Madurai. The target population of the study was post natal mothers, and the sample consisted of 60 post natal mothers, 30 for experimental group and 30 for control group. The tool used for the study was "Am I blue" developed by Skillman, NJ. Johnson and Johnson consumer products. It consisted of 30 items to assess the post natal blues. Majority 29(93.7%) of the post natal mothers in the experimental group had mild baby blues and 1(3.3%) had moderate blues. Whereas a larger percentage 16 (53.3%) of the post natal mothers in the control group had moderate baby blue, 11(36.7%) of the post natal mothers had severe blues in the control group and 3(10%) of the post natal mothers had mild blues. The post natal mothers had encountered difficulties with regard to the physiological factors (Appetite, fatigue, and insomnia) during their immediate postpartum period. However the post natal mothers in the control group (2.80, 2.77 and 2.90 respectively) had heightened experiences when compare to their counter parts in the experimental group (1.60, 1.60 and 1.65 respectively). The post natal mothers more than 25 years of age had experienced the greatest "baby blue feeling" followed by the post natal mothers whose infant weighted between 2

– 3 kg (12.200) and those post natal mothers who had a normal vaginal delivery (11.79).

Reck . C. et. al., (2008), conducted a study on maternity blues as a pre doctor of DSM – IV depression and anxiety disorders in the first three months postpartum. They took 853 women for their study and they assessed the maternity blues, after the 2nd week of delivery in a community, using a telephone interview and the patient health questionnaire – depression. Depression and anxiety disorders were diagnosed according to DSM – IV criteria. Over the first 3 months following delivery. 2 stage screening procedure was applied. In a first stage, the patient health questionnaires depression, the Edinburgh Depression Scale, and two anxiety – Screening Instruments were employed. The estimated prevalence rate of maternity blues among German women was 55.2%, they found a significant association between maternity blues and postpartum depression (odds ration – 3.8) and between maternity blues and anxiety disorders (odds ration – 3.9) Finally they came to a conclusion that women with maternity blues should be carefully observed in the first week postpartum with the aim of identifying those at risk of developing postpartum depression/ anxiety disorders and providing treatment at an early stage of the disorder.

Scand J Varingsci (2008), conducted a comparative study of different instruments to measure blues and to predict depressive symptoms of first 2 months postpartum among new mothers and fathers. The aim of the study was to

investigate ‘blues’ during the first week. Postpartum in new mothers and fathers and to compare different instruments for measuring blues as well as their ability to predict depressive symptoms at 2 months.Parents were informed while at the maternity clinic about the study and asked to independently answer the questions for 5 days during the first week on the blues questionnaire, a VAS questionnaire and on the Edinburgh postnatal depression scale (EPDS) at 1 week and 2 months of the parents who initially agreed to participate in the study 171(38%) of the mothers and 133 (31%) of the fathers returned all questionnaires completely filled-out after the first month. The results showed that mothers experienced more blues than fathers. The blues questionnaire and the VAS sub scale depressed mood. Identified more women as having blues (64% and 52%) respectively during the first week over the EPDS (34%).

N. Denis. et. al., (2008), conducted a study to investigate the contribution of psychological and obstetrical factors in the intensity of postpartum blues. 148 women participated in the study and completed questionnaires 3 days after delivery. A questionnaire was built to collect information on psychosocial and obstetrical factors. The maternity blues (Kennerley and Gath, 1989) was used to assess postpartum blues. Psychological factors were measured with the maternal self-report inventory (Shea erTronick, 1988). The perceived stress scale (Cohen, Kamarch et Mermelstein, 1983) and the Sarason’s social support questionnaire (1983).The intensity of postpartum blues by entering psychosocial factors, history

of depression, obstetrical factors and psychological and relational factors. Significant predictors (Maternal self-esteem, marital status, previous psychotherapeutic treatment, previous antidepressant treatment) were entered in a multiple analysis predicting the intensity of postpartum blues. This model accounted for 31% of the variance in the intensity of postpartum blues ($F(4.143) = 17.9$; $p<0.001$). Maternal self-esteem (beta = -0.37; $p<0.001$). marital situation beta= - 0.16; $p=0.02$) were significant predictors. Previous antidepressant treatment (beta= 0.13; $p=0.05$) was almost a significant predictor.

Yolanta D. Booker & Sonia L. White, et. al., (2007), conducted a study to assess the relationship between socio demographic factors and postpartum blue among a sample of newly delivered mothers in broward county, florida. This was a descriptive-co relational study to explore the relationship between postpartum depressive symptomatology and socio-demographic variables of newly delivered mothers in Broward County, Florida. The available literature suggests that postpartum blues is a fairly common experience found to correlate with biological, environmental, and socio demographic factors. Substance abuse and previous psychiatric disorder history also have been found to correlate with postpartum blues. Roy's Adaptation Model (1984) was the theoretical framework underpinning the study. The Beck Depression Inventory measured depression among a convenience sample of 27 predominantly married, young, White, non-Hispanic women who were four to eight weeks postpartum. The data revealed no

significant correlations among perceptions of inadequate support among women with unplanned pregnancies (r=.4332, r=.024), and women with previous births (r=.6366, p=.008). Single mothers were also more likely to use alcohol in the postpartum period (r=.4183, p=.030). These findings suggest additional research remains necessary area and that nurses must conduct in depth assessment of the psychosocial needs and resources of postpartum women.

Gonodakis F. et. al., (2007), conducted a study to investigate the prevalence, time course and symptomatology of maternity blues in the Greek urban, and relation of maternity blues with certain clinical and socio demographic factors. They took 402 women, they were recruited during the first day after delivery each women completed the Kennerley's blues questionnaire on a daily basis for the first 3 days of puerperium. Clinical and socio demographic data were obtained through questionnaires and personal interview in that 179 (44.5%) women experienced severe maternity blues during the 1st 3 days after delivery. Delivery by caesarian section (p=0.006) stressful events during pregnancy (p=0.02) depressive feelings the last month prior to delivery (p=0.002), anxiety on the day of delivery (p=0.001) and hypochondriasis (p=0.001) were the factors that were found to relate significantly to maternity blues.

Chabrol H. et. al., (2007), conducted a study to evaluate the effect of providing information on postpartum blues during pregnancy on the intensity of the blues. Their sample size is 37 women on the third trimester of pregnancy and

were randomly assigned to one of three groups. The 1st group received a short text book of information. The second group received the text which was regard and discussed and 3rd group was the control group. All the participants completed the Edinburgh postnatal depression scale (EPDS) questionnaire during the period 3 to 5 days of postpartum. They found that providing information on postpartum blues during the 3rd trimester of pregnancy may reduce the intensity of the depressive dimension of the blues

Glowaryet.al., (2007), conducted a study to investigate the prevalence time course and symptomatology of maternity blues in a Greek urban during the first 3 days after delivery. They recruited 402 women during the first day after delivery and data was collected on a daily basis for the first 3 days of postpartum. 179 (44.5%) women experienced severe maternity blues during the first 3 days after delivery. Delivery by Caesarian section (p=0.006), stressful events during pregnancy (p=0.02), depressive feelings the last month prior to delivery (p=0.002), anxiety on the day of delivery (p=0.001) and hypochondriasis (p=0.001) were the factors that were found to relate significantly to maternity blues. The women's emotional condition prior and after delivery, delivery via caesarotomy, as well as tears concerning somatic health had strong impact on the occurrence maternity blues.

Ann Josefsson et.al., (2006), Prevalence of blues symptoms in late pregnancy and postpartum. Postnatal blues refers to a non-psychotic depressive

episode that begins in or extends into the postpartum period. The aims of this study were to examine the prevalence of blues symptoms in a pregnant and later postnatal population, to determine the natural course of these symptoms and whether there is an association between antenatal and postnatal blues symptomatology. a longitudinal study with a total population of 1,558 consecutively registered pregnant women in the southeast region of Sweden. Presence of blues symptoms was measured with the Edinburgh Postnatal Depression Scale on four occasions namely in gestational week 35–36, in the maternity ward, 6–8 weeks and 6 months postpartum.. The prevalence of depressive symptoms during late pregnancy was 17%; in the maternity ward 18%; 6–8 weeks postnatally 13%; and 6 months postnatally, 13%. A correlation between antenatal and postnatal depressive symptoms was found ($r=0.50$, $p<0.0001$).Conclusion. Detection of women at risk for developing postnatal depressive symptoms can be done during late pregnancy.

Cindy-Lee Dennis, (2005), conducted a study on to assess the effect of psychosocial and psychological interventions compared with usual intrapartum, or postpartum care on the risk of postnatal blues. The primary or secondary aim was a reduction in the risk of postnatal blues. The pregnant women new mothers less than six weeks postpartum are selected as a sample. Eligible studies were abstracted, assessed for methodological quality, and pooled with relative risk for categorical data and weighted mean difference for continuous data. The 7697

women were included for the study, although there was no overall statistically significant effect on the prevention of postnatal blues in the meta-analysis of all types of interventions (15 trials, n= 7697; relative risk 0.81,95% confidence interval 0.65 to 1.02), these results suggest a potential reduction in postnatal blues. The only intervention to have a clear preventive effect was intensive postpartum support provided by a health professional (0.68, 0.55 to 0.84). Identifying women "at risk" assisted in the prevention of postnatal depression (0.67, 0.51 to 0.89). Interventions with only a postnatal component were more beneficial (0.76, 0.58 to 0.98) than interventions that incorporated an antenatal component. In addition, individually based interventions were more effective (0.76, 0.59 to 1.00)than group based interventions (1.03, 0.65 to 1.63). Diverse psychosocial or psychological interventions do not significantly reduce the number of women who develop postnatal depression. The most promising intervention is the provision of intensive, professionally based postpartum support.

Dallas.E et. al., (2005), study to demonstrate the possibility of a link between the intensity of the baby blues & some specific factors like maternal self-esteem, maternal child care stress & social background. 95 mothers were studied after the 3rd day following birth & 6 week of post birth. The intensity of the baby blues was explained by the type of pregnancy (p=0.002) a low maternal self-esteem (p=0.025) high level of the baby (p=0.074) on the whole baby blue seem to

be a physiological process whereby the intensity is influenced by psychological factors.

Regave C.J (2005), on influence of prophylactic information on the frequency of baby blues. It is an prospective randomized study. First group was given oral & written information about baby blues and other group as not both the groups were evaluated by using Edinburgh postpartum depression scale in 3 days after delivery them 6 weeks & 3 months of postpartum period. 169 mothers were included in this study the result obtained was only 12(15%) of the information group experienced a baby blues in control group 25(29%)(p=0.027). the percentage of score above 11 in the EPDS around birth was 8.5% vs. 9.3% in the information vs. control group. 6 weeks after birth the percentages were 7.5 vs 7.1 & 12 weeks after birth they were 7.3% vs 8.0% women considering themselves as depressive by self-evaluation 3 month postpartum. Only a few sought help from a specialist 7 or 13 in information vs. 4 of 14 in control group. So the oral & written information about baby blues given postpartum is be an effective.

Wijnen HA, van Montfort M, et. al., (2005), conducted a study on Blues and depression during early puerperium: home versus hospital deliveries in Netherlands, to investigate whether women who give birth at home are less prone to mood disturbances during the early puerperium than those who give birth in hospital,A prospective study of 303 pregnant women who registered for antenatal care.The antenatal clinic at St Joseph's Hospital, Veldhoven, The Netherlands, and

five antenatal consultation programmes of local midwives working in the surrounding region. Three hundred and eighty-two consecutive caucasian women registering for antenatal care were approached. Of these, 303 consented to participate and 293 completed the study. The predictor variable was the way in which the women gave birth: spontaneous vaginal parturition at home or in hospital as follows: spontaneously; vaginal parturition after stimulation with medication; vaginal parturition with forceps/vacuum extraction; or caesarean section. The outcome variables were blues and depression. The occurrence of blues was assessed at 4 weeks postpartum, using Pitt's criteria. The occurrence of depression was assessed at 4 weeks postpartum using the Research Diagnostic Criteria. The possible confounding effects of a set of obstetrical and psycho-social variables relating to the early puerperium were investigated using logistic regression analysis. Of the 293 women who completed the study, 52% gave birth at home. Significantly more nullipara gave birth in hospital. Parturition occurred where it had been planned in 77% of women; referral occurred later on in pregnancy in 11% and during labour in 12%. Nullipara had to be referred significantly more often than multipara. In general, there was no difference in the incidence of blues and depression between women who gave birth at home and those who gave birth in hospital. Obstetric factors were not related to the occurrence of blues or depression in the early puerperium. Women who gave birth in hospital are no more prone to postpartum mood disturbances, such as blues and depression, than women who give birth at home.

Ronzio CR, Mitchell SJ (2010),Maternal depression affects between 10% and 15% of US mothers. Emerging evidence suggests that variability in symptoms is linked to different risk factors and different pathological subtypes. Building on this research, this study examines manifestations of depression symptoms and risk factors associated with different manifestations among a socioeconomically heterogeneous sample of African American mothers. Data were collected via telephone interviews with a community sample of 208 self-identified African American women with children 2 to 18 months old. Mothers were screened for depression symptoms using the Center for Epidemiological Studies Depression scale and reported on several psychosocial factors including social support, history of depression, and demographic characteristics. Cluster analysis was used to determine whether there were distinct subtypes of depression symptoms in this sample. A k-means cluster analysis of the 57 women with a positive depression symptom screen revealed 2 distinct groups characterized by higher versus lower symptom severity. A logistic regression indicated that mothers were more likely to fall into the high severity cluster if they were employed and reported lower levels of social support. Because of its cross-sectional design, this study could not explore the timing and the course of depression symptoms, which may be more closely related to risk and functional impairment than the severity distinction found in this research. Researchers, pediatricians, and obstetricians working with African American mothers should screen for social support, with the understanding that those with low levels may be at increased risk for severe

depression symptoms. Finally, the heterogeneity in symptoms suggests that clinicians should be aware of all depression symptoms among their patients rather than looking for specific, potentially stereotypical symptoms as cues.

Weisman O, Granat A, et. al., (2010), Postpartum negative mood interferes with maternal-infant bonding and carries long-term negative consequences for infant growth. We examined the effects of birth-related risks on mother's postpartum anxiety and depression. A community cohort of 1,844 low-risk women who delivered a singleton term baby completed measures assessing delivery, emotions during labor, attitudes toward pregnancy and infant, mood regulation, and postpartum anxiety and depression. Under conditions of low risk, 20.5% of parturient women reported high levels of depressive symptoms. Following Cesarean Section Delivery (CSD), 23% reported high depressive symptoms, compared to 19% following Vaginal Delivery (VGD), and 21% after Assisted Vaginal Delivery (AVGD). State anxiety was highest in CSD and lowest in VGD. Mothers undergoing CSD experienced labor as most negative, reported highest somatic symptoms during the last trimester, and were least efficient in regulating negative mood. Postpartum depression was independently associated with higher maternal age, CSD, labor pain, lower negative and higher positive emotions during labor, inefficient mood regulation, somatic symptoms, and more negative and less positive perception of fetus during last trimester. Results demonstrate that elevated depressive symptoms are prevalent in the postpartum

even under optimal socioeconomic and health conditions and increase following CSD. Interventions to increase positive infant-related perceptions and emotions may be especially important for promoting bond formation following CSD.

M. Akbarzadeh, M.S, et. al., (2010), conducted a study on Prevalence of Symptoms Post-Partum Anxiety and Baby Blues and Factors Effective Upon it in Women with High Risk Pregnancies. The purpose of this study is to examine of the prevalence and risk factors of anxiety and depression in high riskpregnancies.400 subjects from 15-45 years old women referring to hospitals affiliated to the university. Collected and the study was on a case-control basis. Sampling was made through interviews using questionnaires including Beck&Spielberger standard test for depression and anxiety. Prevalence of severe depression in the population under study was estimated to be 21.1% and that of high anxiety was 85.5%. In both of them, the difference between the group was significant (P<0.001).Multiple logistic regression analysis by the stepwise method showed a relation between the mother demographic characteristics, emotional support of the mother by her spouse and the family, pregnancy complications and newborn characteristics.

Iqbal S Azam, et. al., (2009), A quasi-experimental study investigating the impact of postpartum anxiety and depression on child growth and development was conducted in two peri-urban, multiethnic, communities of Karachi, a mega city of Pakistan. A house to house questionnaire based survey was done by trained

field workers; 420 consenting pregnant women were identified and data for socio-demographic, home environment and family relationship variables was collected between 36 weeks of pregnancy and within 10 days of childbirth. Mother's levels of anxiety and depression were assessed after one month, two months, six months and twelve months of childbirth; this was two-step process: initially an indigenous, validated screening instrument Aga Khan University Anxiety and Depression Scale was used and diagnostic confirmation was done through a psychologist's interview based on DSM IV criteria. Women found to be anxious and depressed at least once out of four assessments were considered for the computation of overall prevalence of postpartum anxiety and depression as well as its risk factors. However, point prevalence's of postpartum anxiety and depression were also reported at each assessment time. Two sixty seven women could be followed for one year. Data was analyzed using SPSS. Chi-square test, simple and multiple logistic regression were used to see the association of different factors. The overall prevalence of postpartum anxiety and depression was found to be 28.8 percent. Domestic violence, difficulty in breast feeding at birth and unplanned current pregnancy were found to be significantly associated with postpartum anxiety and depression. Domestic violence and not having the right to plan pregnancy are related to the patriarchal culture and lack of empowerment of women. The association with difficulties in breast feeding needs to be further explored in future studies

Reulbach. U, et. al., (2009), conducted a study on Pre natal, Peri natal and postpartal depression. A prospective study of 1,100 pregnant women was interviewed with standardized questionnaires at three points of time: Prepartal (U1): from the 30th week of pregnancy onwards, 48 - 72 hours (U2) postpartum and 6 - 8 months postpartum (U3). Where an additional telephone interview at the 10th day postpartum was conducted with a focus on symptoms relating to Baby Blues such as mood instability, irritability and concentration deficits. The Edinburgh Postnatal Depression Scale (EPDS) and the Hamilton Rating Scale For Depression (HAMD) were used for quantification of depressivity at each point of time. EPDS values differed significantly (Friedman Test; chi (2) = 110.8; df = 2, p < 0,001) between the different examination points (Wilcoxon Test; U1 - U2: Z = -11.0; p < 0.001; U1 - U3: Z = -6.6; p < 0.001; U2 - U3: Z = -4,5; p < 0,001). Regarding EPDS values, higher values were observed prepartum (U1). After a decrease after two to three days postpartum (U2), values increased again. However, EPDS values six months postpartum (U3) were still lower than prepartum (U1). The observed EPDS values postpartum are comparable to results of other studies. The higher EPDS values prepartum have a good predictive value. There is a great need and possibility for improved prevention of postpartal disorders, when appropriately addressed in the prepartum period.

Ugarriza DN, Schmidt L, et. al., (2010), conducted a study on Telecare for women with postpartum depression. Data were collected to pilot test the feasibility and effects of telecare as an intervention for depression in a small group of mothers with postpartum depression. Treatment involved a 10-week telecare therapy consisting of three related aspects: cognitive-behavioral therapy, relaxation techniques, and problem-solving strategies. Beck Depression Inventory II scores were significantly lower after telecare treatment. Women identified psycho-education as the greatest help to them.

Huskamp. HA, Adams. AS, et al., (2007), Racial and ethnic disparities in postpartum depression care among low-income women. In Harvard Pilgrim Health Care Institute, USA. The goal of this study was to characterize racial-ethnic differences in mental health care utilization associated with postpartum depression in a multiethnic cohort of Medicaid recipients. In a retrospective cohort study, administrative claims data from New Jersey's Medicaid program were obtained for 29,601 women (13,001 whites, 13,416 blacks, and 3,184 Latinas) who delivered babies between July 2004 and October 2007. Racial-ethnic differences were estimated with logistic regression for initiation of antidepressant medication or outpatient mental health visits within six months of delivery, follow-up (a prescription refill or second visit), and continued mental health care (at least three visits or three filled antidepressant prescriptions within 120 days). Nine percent (N=1,120) of white women initiated postpartum mental health care, compared with 4% (N=568) of black women and 5% (N=162) of Latinas. With analyses

controlling for clinical factors, the odds of initiating treatment after delivery were significantly (p<.001) lower for blacks (adjusted odds ratio [AOR] =.43) and Latinas (AOR=.59) compared with whites. Among those who initiated treatment, blacks and Latinas were less likely than whites to receive follow-up treatment (blacks, AOR=.66, p<.001; Latinas, AOR=.67, p<.05) or continued care (blacks, AOR=.81, p=.069; Latinas, AOR=.67, p<.05). Among those who initiated antidepressant treatment, black women and Latinas were less likely than whites to refill a prescription. There were significant racial-ethnic differences in depression-related mental health care after delivery. Suboptimal treatment was prevalent among all low-income women in the study. However, racial and ethnic disparities in the initiation and continuation of postpartum depression care were particularly troubling and warrant clinical and policy attention.

Sit D, Wisner. KL, et al., (2010), conducted a study on Seasonal effects on depression risk and suicidal symptoms in postpartum women. Western Psychiatric Institute and Clinic, University of Pittsburgh. From 2006 to 2010, the investigators screened women within 4-6 weeks postpartum with the Edinburgh Postnatal Depression Scale (EPDS). We used spectral analysis to explore seasonal variation in risk for depression and suicidality. The study team screened 9,339 new mothers, of whom 1,316 (14%) women had positive depression scores (EPDS≥10) which suggest PPD risk; 294 (3%) women had SI (item 10≥1). A positive EPDS was associated significantly with SI. PPD risk varied significantly across 12-

months-risk was highest in December. We detected no seasonal variation in SI. Effects of seasonal light variation may contribute to increased risk for depressive symptoms. Suicidality could be related to maternal depression but not seasonal variation.

Ndokera. R, MacArthur. C, et. al., (2010), conducted a study on the relationship between maternal depression and adverse infant health outcomes in Zambia. A cross-sectional study was undertaken in a rural district of Zambia. Consecutive women with infants between 2 and 12 months were recruited from under five clinics in three locations. Depression was assessed using the Self-reporting Questionnaire. Outcomes of infant size (actual weight and length, and as ≤ 5th percentile) and infant health (serious illness, diarrhoeal episodes, incomplete vaccination) were obtained. Relative risk, step-wise logistic regression and linear regression were used to analyze the data. Two hundred seventy-eight of 286 women agreed to take part (97.1%). The proportion with a high risk of depression was 9.7%. Adverse infant health outcomes were all proportionally greater in infants of 'depressed' mothers, and the associations with adjusted mean difference in weight (0.58 kg, CI 0.09-1.08) and length (1.95 cm, CI 0.49-3.50) were statistically significant. Other independent associations with episodes of diarrhea (maternal education, older infant age, supplementary feeding) and incomplete vaccination (location, older infant age) were identified. It is feasible to conduct a

study on this subject in a rural area of Zambia. The results show that reduced infant weight and length were significantly associated with maternal 'depression'.

Rotenberg. N D,Klein. E, et. al., (2006) conducted a study on Risk factors for early postpartum depressive symptoms in Psychiatric Outpatient Department, Tel Aviv Souraski Medical Center, Israel. All women (n= 1,800) in a general hospital maternity ward were assessed during the first 3 days after parturition for potential risk factors for postpartum depressive disorders by a self-reported questionnaire and for present mood symptoms (Edinburgh Postnatal Depression Scale, EPDS). The associations between potential risk factors and postpartum depressive symptoms were analyzed. The incidence of women with an EPDS >or=10 was 6.8% (88/1,286). Significant risk factors for early postpartum depressive symptoms were a history of mental illness including past postpartum depression (PPD), premenstrual dysphoric disorder (PMDD), and mood symptoms during the third trimester. In accordance with other studies, a history of depression was found to be a risk factor for early postpartum mood symptoms. An association was also found between some risk factors of possible hormone-related etiology such as PMDD and third trimester mood symptoms and early postpartum mood symptoms. As such, early postpartum symptoms may indicate vulnerability to subsequent PPD; it may be of importance to assess these risk factors and mood immediately after parturition. A prospective study is needed to determine which of

these risk factors is associated with progression to PPD and which resolves as the blues.

Harris. B, Read. GF, (2000), conducted a study on Maternity blues and major endocrine changes in Cardiff. Prospective study of primi parous women from two weeks before expected date of delivery to 35 days postpartum. The settings are Antenatal clinic in university hospital, obstetric inpatient unit, patients' homes, University of Wales College of Medicine, Cardiff. 120 of 156 primi parous women interviewed. Remainder excluded because of major marital, socioeconomic, or medical problems or because caesarean section required. Concentrations of progesterone and cortisol in saliva samples; women's moods assessed by various scores for depression. Changes in salivary progesterone and cortisol concentrations were similar to those already characterised for plasma. Peak mean score for maternity blues (5.3 on Stein scale) was on day five postpartum ($P < 0.02$ compared with mean scores on other postpartum days). High postpartum scores for maternity blues were associated with high antenatal progesterone concentrations on day before delivery ($P < 0.05$), with high rate of rise of antenatal progesterone concentrations ($P < 0.05$), with decreasing progesterone concentrations from day of delivery to day of peak blues score ($P >$ or $= 0.01$), and with low progesterone concentrations on day of peak blues score ($P < 0.01$). Seventy eight women were designated as having maternity blues (peak score > or = 8 on Stein scale) while 39 had no blues. Women with blues had

significantly higher antenatal progesterone concentrations and lower postnatal concentrations than women without blues (geometric mean progesterone concentrations: one day before delivery 3860 pmol/l v 3210 pmol/l respectively, P = 0.03; ten days postpartum 88 pmol/l v 114 pmol/l, P = 0.048). Cortisol concentrations were not significantly associated with mood. Maternal mood in the days immediately after delivery is related to withdrawal of naturally occurring progesterone.

Murata. A,Nadaoka, et. al., (1998), conducted a study on prevalence and back ground factors of maternity blues. It was a longitudinal study there about 111 women where taken as a sample and conducted the study on women who received obstetric care at Yamagata university hospital from November 1994 to 1995 august. Cases of maternity blues were found using Am I blue self-rating maternity blues scale. Mother child relationship in the women's childhood were assessed using the parental bonding instrument of the 111 women. 17 (15.3%) developed maternity blues during the 1st postpartum month. The PBI revealed that these depressed women appeared to be cared for less sufficiently in their own childhood than the non- depressed women. As revealed in interviews, they also seemed to receive less support from their families during pregnancy. These findings suggest that maternity blues may be related to insufficient maternal care in childhood, as well as to poor family support during pregnancy.

Van Montfort. M, et. al., (1995), To investigate whether women who give birth at home are less prone to mood disturbances during the early puerperium than those who give birth in hospital. A prospective study of 303 pregnant women who registered for antenatal care. The antenatal clinic at St Joseph's Hospital, Veldhoven, The Netherlands, and five antenatal consultation programmes of local midwives working in the surrounding region. Three hundred and eighty-two consecutive caucasian women registering for antenatal care were approached. Of these, 303 consented to participate and 293 completed the study. The predictor variable was the way in which the women gave birth: spontaneous vaginal parturition at home or in hospital as follows: spontaneously; vaginal parturition after stimulation with medication; vaginal parturition with forceps/vacuum extraction; or caesarean section. The outcome variables were blues and depression. The occurrence of blues was assessed at 4 weeks postpartum, using Pitt's criteria. The occurrence of depression was assessed at 4 weeks postpartum using the Research Diagnostic Criteria. The possible confounding effects of a set of obstetrical and psycho-social variables relating to the early puerperium were investigated using logistic regression analysis. Of the 293 women who completed the study, 52% gave birth at home. Significantly more nullipara gave birth in hospital. Parturition occurred where it had been planned in 77% of women; referral occurred later on in pregnancy in 11% and during labour in 12%. Nullipara had to be referred significantly more often than multipara. In general, there was no difference in the incidence of blues and depression between

women who gave birth at home and those who gave birth in hospital. Obstetric factors were not related to the occurrence of blues or depression in the early puerperium. Women who gave birth in hospital are no more prone to postpartum mood disturbances, such as blues and depression, than women who give birth at home.

Ellen. J, Wright, et. al., (1991), conducted a Prospective Study of Postpartum Blues. Potential biologic and psychosocial causative factorsfor the postpartum blues were tested in a prospective studyof 182 women followed up from the second trimester of pregnancyuntil postpartum week. Personal and family history of depression,depressive symptoms, stressful life events, and social adjustmentwere all assessed during the second trimester. Levels of progesterone,prolactin, estradiol, free and total estriol, and free and totalcortisol were measured on several occasions during late pregnancyand early puerperium. Obstetric and child-care stressors andthe postpartum blues were assessed after delivery. Predictorsof the postpartum blues were personal and family history ofdepression, social adjustment, stressful life events, and levelsof free and total estriol. Our results support the hypothesisthat the postpartum blues is within the spectrum of affectivedisorders.

2. STUDIES RELATED TO EMOTIONAL FREEDOM TECHNIQUE

Wells. S, (2010), This study explored whether a meridian-based procedure, Emotional Freedom Techniques (EFT), can reduce specific phobias of small animals under laboratory-controlled conditions. Randomly assigned participants were treated individually for 30 minutes with EFT (n = 18) or a comparison condition, Diaphragmatic Breathing (DB) (n = 17). ANOVAS revealed that EFT produced significantly greater improvement than did DB behaviorally and on three self-report measures, but not on pulse rate. The greater improvement for EFT was maintained, and possibly enhanced, at 6 - 9 months follow-up on the behavioral measure. These findings suggest that a single treatment session using EFT to reduce specific phobias can produce valid behavioral and subjective effects.

Linda Geronilla, (2009), A observational study onpsychological symptom change in veterans after six sessions of emotional freedom techniques. This observational study examined the effects of six sessions of EFT on seven veterans, using a within-subject; time-series, repeated measures design. Participants were assessed using a well-validated instrument, the SA-45, which has general scales measuring the depth and severity of psychological symptoms. It also contains subscales for anxiety, depression, obsessive-compulsive behavior, phobic anxiety, hostility, interpersonal sensitivity, paranoia, psychosis, and somatization. Participants were assessed before and after treatment, and again after

90 days. Interventions were done by two different practitioners using a standardized form of EFT to address traumatic combat memories. Symptom severity decreased significantly by 40% ($p<.001$), anxiety decreased 46% ($p<.001$), depression 49% ($p<.001$), and PTSD 50% ($p<.016$). These gains were maintained at the 90-day follow-up.

Church. D, (2009), The Treatment of Combat Trauma in Veterans Using EFT. In this study, a sample of 11 veterans and family members were assessed for PTSD and other conditions. Evaluations were made using standard psychological evaluations, the SA-45 (Symptom Assessment 45) and the PCL-M (Posttraumatic Stress Disorder Checklist – Military). The study used a time-series, within-subjects, repeated measures design. A baseline measurement was obtained thirty days prior to treatment, and immediately before treatment began. Subjects were then treated with a brief and novel exposure therapy, EFT (Emotional Freedom Techniques), for five days with 2 to 3 hours of treatment per day. Statistically significant improvements in the SA-45 and PCL-M scores were found at posttest. These gains were maintained at both the 30- and 90-day follow-ups on the general symptom index, positive symptom total and the anxiety, somatization, phobic anxiety, and interpersonal sensitivity subscales of the SA-45, and on PTSD. The remaining SA-45 scales improved posttest but were not consistently maintained at the 30- and 90-day follow-ups. In summary, after EFT treatment, the group no longer scored positive for PTSD, the severity and breadth of their psychological

distress decreased significantly, and most of their gains held over time. This suggests that EFT can be an effective post-deployment intervention.

Caring (2009), This study investigated the effect on test anxiety of Emotional Freedom Techniques (EFT), a brief exposure therapy with somatic and cognitive components. A group of 312 high school students enrolled at a private academy was evaluated using the Test Anxiety Inventory (TAI), which contains subscales for worry and emotionality. Scores for 70 demonstrated high levels of test anxiety; these students were randomized into control and experimental groups. During the course of a single treatment session, the control group received instruction in Progressive Muscular Relaxation (PMR); the experimental group, EFT, followed by self-treatment at home. After two months, subjects were re-tested using the TAI. Repeated covariance analysis was performed to determine the effects of EFT and PMR on the mean TAI score, as well as the two subscales. Each group completed a sample examination at the beginning and end of the study, and their mean scores were computed. Thirty-two of the initial 70 subjects completed all the study's requirements, and all statistical analyses were done on this group. A statistically significant decrease occurred in the test anxiety scores of both the experimental and control groups. The EFT group had a significantly greater decrease than the PMR group ($p < .05$). The scores of the EFT group were lower on the emotionality and worry subscales ($p < .05$). Both groups scored

higher on the test examinations after treatment; though the improvement was greater for the EFT group, the difference was not statistically significant.

Church. D, (2008), conducted a study on the Effect of Energy Psychology (EFT) on Athletic Performance: A Randomized Controlled Blind Trial. This study investigated whether the most widely practiced form of Energy Psychology, called Emotional Freedom Techniques (EFT), could affect athletic performance. It evaluated whether a single brief EFT treatment for performance stress could produce an improvement in two skills for high-performance men's and women's college basketball teams at Oregon State University. The treatment group received a brief EFT session while the control group received a "tips and techniques reading" (TTR). Performance was measured on free throws and vertical jump height. Basketball players who received the EFT intervention scored an average of 21% better individually in free throws after treatment than the control group, while the control group scored an average of 17% lower ($p<0.028$). However, there was no statistically significant difference between the groups in their percent change in jump height. When analyzed separately, there was a trend for females in the EFT condition to have better performance on both free throws and jump height than females in the control group. These findings suggest that EFT performed as an intervention during the course of an athletic event may reduce performance stress, and improve individual player function for free throws.

Brattberg. G, (2008), conducted a study on Self-administered EFT in individuals with fibromyalgia, a randomized trial, The aim of this study was to examine if self-administered EFT (Emotional Freedom Techniques) leads to reduced pain perception, increased acceptance, coping ability and health-related quality of life in individuals with fibromyalgia. 86 women, diagnosed with fibromyalgia and on sick leave for at least 3 months, were randomly assigned to a treatment group or a waiting list group. An eight-week EFT treatment program was administered via the Internet. Upon completion of the program, statistically significant improvements were observed in the intervention group (n=26) in comparison with the waiting list group (n=36) for variables such as pain, anxiety, depression, vitality, social function, mental health, performance problems involving work or other activities due to physical as well as emotional reasons, and stress symptoms. Pain catastrophizing measures, such as rumination, magnification and helplessness, were significantly reduced, and the activity level was significantly increased. The number needed to treat (NNT) regarding recovering from anxiety was 3. NNT for depression was 4. Self-administered EFT seems to be a good complement to other treatments and rehabilitation programs. The sample size was small and the dropout rate was high. Therefore the surprisingly good results have to be interpreted with caution.

Ledger.K, et. al., (2008), Conducted a study of Emotional Freedom Technique (EFT), Wholistic Hybrid derived from EMDR and EFT (WHEE) and

Cognitive Behavioral Therapy (CBT) for treatment of test anxiety in university students. Canadian university students with severe or moderate test anxiety participated. A double-blind, controlled trial of WHEE (n = 5), EFT (n =5), and CBT (n = 5) was conducted. Standardized anxiety measures included: the Test Anxiety Inventory (TAI) and Hopkins Symptom Checklist (HSCL-21). Results Despite small sample size, significant reductions on the TAI and HSCL-21 were found for WHEE; on the TAI for EFT; and on the HSCL-21 for CBT. There were no significant differences between the scores for the three treatments. In only two sessions WHEE and EFT achieved the equivalent benefits to those achieved by CBT in five sessions. Participants reported high satisfaction with all treatments. EFT and WHEE students successfully transferred their self-treatment skills to other stressful areas of their lives. WHEE and EFT show promise as effective treatments for test anxiety.

Church.D, (2008), the effect of a brief EFT (Emotional Freedom Techniques) self-intervention on anxiety, depression, pain and cravings in healthcare workers inToronto. This study examined a cross section of 194 healthcare professionals, including physicians, nurses, psychotherapists, chiropractors, psychiatrists, alternative medicine practitioners, and allied professionals. It examined whether self-intervention with Emotional Freedom Techniques (EFT), a brief exposure therapy that combines a cognitive and a somatic element, had an effect on subjects' levels of anxiety, depression, and other

psychological symptoms. The study utilizes within-subjects, time-series, repeated measures design. It evaluates symptoms using the SA-45, a well-validated 45 item questionnaire. Besides measuring the breadth and intensity of psychological distress, this instrument has nine subscales for specific conditions, including anxiety and depression. It was administered to subjects before and after an EFT demonstration and self-application that lasted about 90 minutes. Subjects also self-reported physical pain, emotional distress, and cravings on a 10 point Likert-type scale. The SA-45 follow up was administered 3 months later, to determine whether any improvement held over time. Subjects received a single page homework EFT reminder sheet, and their frequency of practice was tracked at follow up. EFT self-application resulted in statistically significant decreases in pain, emotional distress, and cravings, and improvements for all nine subscales. On the two general scales on the SA-45, symptom severity dropped by 34%, and symptom breadth by 40% relative to normal baselines (both $p<.001$). Pain scores dropped by 68%, the intensity of traumatic memories by 83%, and cravings by 83% (all $p<.001$).

3. STUDIES RELATED TO COMPLIMENTARY THERAPIES ON POSTPARTUM BLUE

Ponmalar, (2011), Conducted a study effectiveness of guided imagery therapy on postpartum blues among Primi mothers in selected hospital at Coimbatore district, The research design used was quasi - experimental design

(posttest only control group design) sample size was 60 Primi mothers. 30 experimental group and 30 control groups. The samples were selected by using convenience sampling method. Modified AM I BLUE self rating postpartum blues scale was used for data collection, In the experimental group after the Guided Imagery Therapy majority 25(83.33%) of the Primi mothers had mild postpartum blues, where as in control group majority 23(76.66%) had moderate blues. In experimental there is no significant relationship between the demographic variables and guided imagery on postpartum blues except for age limit at $p<0.05$ level. In control group there is significant relationship for income, religion and type of There was significant difference in guided imagery on postpartum blues among experimental group of Primi mothers. So the guided imagery therapy was independently effective in reducing postpartum blues except the age limit in experimental group. So the guided imagery therapy was effective.

Korean. J, (2010),conducteda study onThe effects of music therapy on postpartumblues and maternal attachment of puerperal women in Catholic University of Daegu, Korea. The research design was a nonequivalent control group non-synchronized design. The participants were puerperal women who agreed to participate in this study and through a convenience sampling, 60 puerperal women were recruited (30 in the experimental group, 30 in the control group). After measuring postpartumblues and maternal attachment, music therapy was provided to the experimental group over 40 min, once a day, and for 8 days.

Then, postpartumblues and maternal attachment for the experimental and control group were measured again on the 8th day. The data were analyzed using the SPSS WIN 12.0 Program. The first hypothesis that "the degree of postpartumblues for the experimental group who participated in music therapy would be lower than that of the control group" was accepted ($t=4.350$, $p<.001$). The second hypothesis that "the degree of maternal attachment of the experimental group who participated in music therapy would be higher than that of the control group" was accepted ($t=4.828$, $p<.001$). These findings indicate that music therapy has positive influences on decreasing postpartumblues and increasing maternal attachment of puerperal women.

Imura.M, Misao.H, et. al., (2006), effects of aromatherapy-massage in healthy postpartum Bunkyo-ku, Tokyo, Japan. This study examined the effect of aromatherapy-massage in healthy postpartum mothers. A quasi-experimental between-groups design was used. Mothers who received aromatherapy-massage were compared with a control group who received standard postpartum care. Thirty-six healthy, first-time mothers with vaginal delivery of a full-term, healthy infant participated in this study. Sixteen mothers received a 30-minute aromatherapy-massage on the second postpartum day; 20 mothers were in the control group. All mothers completed the following four standardized questionnaires before and after the intervention: 1) Maternity Blues Scale; 2) State-Trait Anxiety Inventory; 3) Profile of Mood States (POMS); and 4) Feeling

toward Baby Scale. In the aromatherapy-massage group, post treatment scores significantly decreased for the Maternity Blues Scale, the State-Anxiety Inventory, and all but one of the Profile of Mood States subscales. Post treatment scores in the intervention group significantly increased in Profile of Mood States-Vigor subscale and the Approach Feeling toward Baby subscale. Scores in the intervention group significantly decreased in Conflict Index of Avoidance/Approach Feeling toward Baby subscale. Our results suggest that aromatherapy-massage might be an effective intervention for postpartum mothers to improve physical and mental status and to facilitate mother-infant interaction.

Sakuma.K, Ueki. M, et. al., (2005), Efficacy of the kampo medicine xiong-gui-tiao-xue-yin (kyuki-chouketsu-in), a traditional herbal medicine, in the treatment of maternity blues syndrome in the postpartum period in Department of Obstetrics and Gynecology, Osaka Medical College Takatsuki, Japan. This study was to evaluate the clinical efficacy of Xiong-gui-tiao-xue-yin (Kyuki-chouketsu-in), a Japanese traditional herbal medicine, in stabilizing postpartum psychological state. We enrolled 268 women who had a normal delivery in Osaka Medical College Hospital or its affiliated clinics and randomly assigned them to the following two groups: a group of 134 women who received Xiong-gui-tiao-xue-yin (Kyuki-chouketsu-in) at a dose of 6.0 g/day and another group of 134 women without Xiong-gui-tiao-xue-yin (Kyuki-chouketsu-in) (control group). We observed 2.06-fold and 1.67-fold higher incidences of depressive mood and

nervousness, respectively, after delivery in the control group than in the Xiong-gui-tiao-xue-yin (Kyuki-chouketsu-in) group. Within 3 weeks of postpartum, there was a significant difference in the incidences of maternity blues between the Xiong-gui-tiao-xue-yin (Kyuki-chouketsu-in) group (15.7%; 21/134) and the control group (32.1%; 43/134) ($p = 0.0195$). No adverse effects were observed in this study. The results of this study demonstrate the beneficial clinical effects of Xiong-gui-tiao-xue-yin (Kyuki-chouketsu-in) in stabilizing psychological state in the postpartum period. Xiong-gui-tiao-xue-yin (Kyuki-chouketsu-in) can be expected to improve the mental health of women in the postpartum period and prevent maternity blues.

4. STUDIES RELATED TO EMOTIONAL FREEDOM TECHNIQUE ON POSTPARTUM BLUE.

Dr. Eric Robins, (2011), conducted a study on effectiveness of Emotional freedom technique on post natal blues, among the post natal mothers in Sindian City. A quasi-experimental between-groups design was used. Mothers who received EFT were compared with a control group who received standard postpartum care. The sample consisted of 260 post natal mothers, 160 for experimental group and 100 for control group. EFT was given to experimental group for one week. Postpartum blue symptoms were assessed by Likert Am I blue scale. Majority 94.5% of the post natal mothers in the experimental group had

mild baby blues and 5.5% had moderate blues. Whereas in control group most 60% of the post natal mothers had moderate baby blue, 38% of the post natal mothers had mild blues and 2% of them had severe blue.

Ettner. S, (2010),conducted a study to assess the effectiveness of EFT on post caesarean mother with postnatal blues. A randomized controlled trial was carried out to determine the effects of EFT on stress and anger among mothers with postnatal blues. A randomized controlled trial design with repeated EFT training was used. Data were collected over a 1week period. 60 subjects were randomly assigned to either the experimental or control group. Subjects in the experimental group practiced EFT three times for 30 minutes over 7 days; effects of EFT training on stress and anger were assessed by using questionnaire. The mothers with postpartum blue in the experimental group showed significantly improvement than mothers with postpartum blue in the control group after EFT. Results suggest that EFT training was effective in treating the stress and anger among mother with postpartum blue, the $P<0.05$ which showed that there is a significant change in stress and anger among postpartum blue mothers after EFT training.

Church. D, (2010), conducted a study on effectiveness of Emotional freedom technique on post natal blues, among mothers after caesarean section. A quasi-experimental design was used. Mothers who received EFT were compared with a control group who received normal postoperative care. The sample size is

73 post caesarean mothers, 37 for experimental group and 36 for control group. EFT was given to experimental group for one week. Postpartum blue symptoms were assessed by Likert Am I blue scale. Majority 96.3% of the post natal mothers in the experimental group had mild baby blues and 3.7% had moderate blues. Whereas in control group most 68% of the post natal mothers had moderate baby blue, 31% of the post natal mothers had mild blues and 1% of them had severe blue.

Hashima, et. al., (2008),conducted a study to assess the effectiveness of EFT training in reducing anxiety and depression among postnatal mothers with blue in Australia. The purpose of this study was to investigate the effectiveness of EFT on reducing anxiety and depression in postnatal mothers. While the experimental group mothers took a 30-minute EFT session, control group mothers were asked to rest. When compared with the control group, mothers in the experimental group showed significant reduction of anxiety and depression, $t(29) = -3.38$, ($p = .002$), In analyzing data from the two groups, we found that the sense of anxiety, $t(58) = -3.21$, $p = .002$, and depression $t(58) = -2.90$, $p = .005$ in the experimental group decreased significantly following EFT.

CHAPTER - III

METHODOLOGY

Research methodology is a systematic way to solve the research problem and also to carry out the academic study and research in a correct manner,**(Polit and Beck, 2004).**

The methodology of research indicates that general pattern of organizing the procedure for gathering valid and reliable data for the problem under investigation, **(Kothari, 1996).**

Research methodology is a significant part of any study which enables the researcher to project the research undertaken,**(Abdullah, 1979).**

The present study was conducted to evaluate the effectiveness of emotional freedom technique on postpartum blue among post cesarean section mothers.

This chapter includes research approach, research design, setting of the study, variables, population, sample, sample size, sampling techniques, criteria for the sample selection, developing and description of tool, data collection procedure, plan for data analysis and interpretation of the data.

RESEARCH APPROACH

Research approach is the most essential part of any research. The entire study is based on it. The research approach used in the study is an applied form of research to find out how well the intervention is effective. In this study, the effectiveness of emotional freedom technique on postpartum blue was evaluated. Therefore an evaluation approach was essential to test the effectiveness of the intervention.

RESEARCH DESIGN

Research design incorporates the most imported methodological decisions that a researcher makes in conducting a research study. It depicts the over plan for organization of scientific investigations. It helps the researcher in the selection of subjects, manipulation of independent variables and observation of a type of statistical method to be used to interpret the data. The selection of the design depends upon the purpose of the study, research approach and variables to be studied, **(Polit and Hungler, 1999).**

The research design used for the present study was quasi experimental design where pretest and posttest with control group design was selected to evaluate the effectiveness of emotional freedom technique on postpartum blue among post cesarean section mothers.

Fig 3.1: Diagrammatic presentation of the design

Purposively selected post cesarean section mother	**Pre test**	**Intervention**	**Post test**
Experimental group	O_1	X	O_2
Control group	O_3	-	O_4

The symbols used are,

O_1 – Pretest scores on postpartum blue among post cesarean section mothers in experimental group.

O_2 – Post test scores on postpartum blue among post cesarean section mothers in experimental group

X – Emotional Freedom Technique

O_3 – Pretest scores on postpartum blue among post cesarean section mothers in control group

O_4 – Post test scores on postpartum blue among post cesarean section mothers in control group

SETTING

Research settings are specific places in a research where data collection is to be made. The selection of setting was done on the basis of the feasibility of

conducting the study, availability of subject and permission of authorities, **(Polit and Hungler, 2003).**

1. The setting for experimental group was TPN hospital, Erode. This is a private maternity hospital. It is located 20 km away from the Dhanvantri College of nursing. It is 50 bedded hospitals. An average of 3-5 deliveries with Cesarean section per day.
2. The setting for control group was Government Head Quarters hospital, Erode. It is located 20 km away from the Dhanvantri College of nursing. It is 650 bedded hospitals. An average of 6-8 deliveries with Cesarean section per day.

VARIABLES

Variables are characters that can have more than one value. The categories of variables discussed in the present study are,

Independent variables

According to **Polit and Hungler (1999),** the variable that is believed to care or influence the behaviourand ideas.

In this present study, the independent variable is Emotional freedom technique.

Dependent variables

Accordingto **Polit and Hungler (1999),** the dependent variable is the researcher is interested in understanding, explaining, and proceeding.

In this present study, the dependent variable is Postpartum blue.

POPULATIONS

Population refers to the entire aggregation of cases that meets the design criteria, **(Polit and Beck, 2002).**

The population for the present study was post cesarean section mothers with postpartum blue.

SAMPLE

A sample is the portion of the population that has been selected to represent the population of interest, **(Talbott, 1991).**

The sample for the present study were , Post cesarean section mothers with postpartum blue admitted at TPN hospital and Government Head Quarters Hospital , Erode. Willing to participate and present during the period of data collection.

SAMPLE SIZE

Sample size is normally decided by nature of the study, nature of the population, type of sampling technique, total variable, statistical test adopted for data analysis and sensitivity measures and attrition, **(Polit and Beck, 2001).**

The total sample size was 30 post cesarean mothers, out of which 15 were experimental group and 15 werecontrol group.

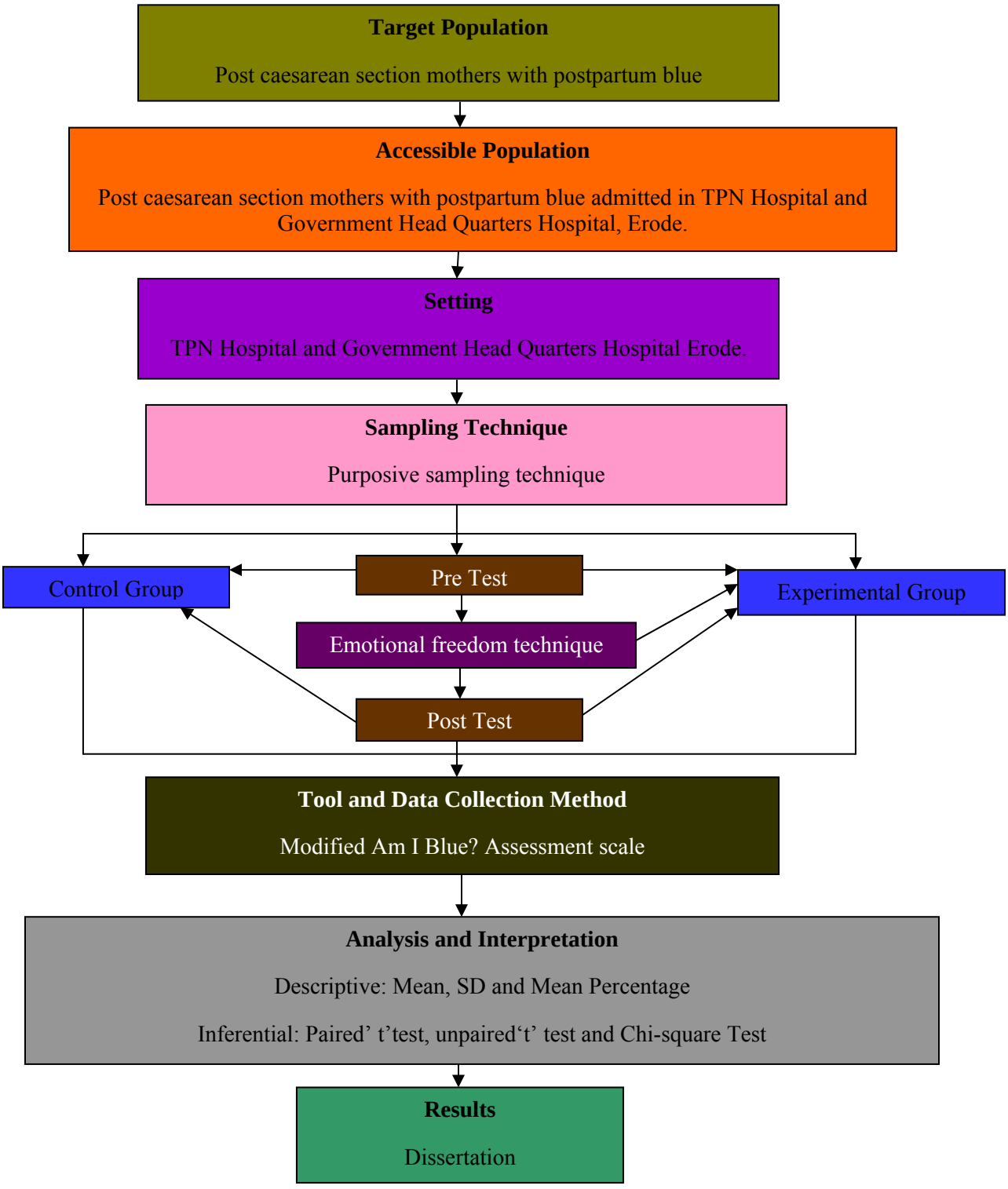


FIG:3.2 SCHEMATIC REPRESENTATION OF RESEARCH METHODOLOGY

SAMPLING TECHNIQUE

Sampling is the process of selecting a portion of the population who represent the entire population**, (Polit and Beck, 2001).**

Purposive sampling technique was used for the present study. All post cesarean section mothers in the TPN Hospital and GH, who are having postpartum blue, were selected as a sample.

According to **Polit and Hungler, (2002),**Purposive sampling isthe researcher selects participants based on personal judgment about which ones will be most representative or informative.

CRITERIA FOR SAMPLE SELECTION

Inclusion criteria

Post cesarean section mothers,

- Any age group.
- From 3rd postoperative day.
- Primi Para mothers.
- Moderate and severe symptoms of postpartum blue.
- Who have given consent to participate in this study
- Able to understand and speak Tamil.
- Who are present during the period of data collection.

Exclusion criteria

Post caesarian section mothers with

- Postpartum haemorrhage.
- Pre and Post Eclamptic episodes.
- Narcotics received during postoperative periods.

DEVELOPMENT OF THE TOOL

There are two sections tools were used, they are

Section A: It consists ofdemographic variables of post cesarean section mother i.e age, education, Monthly income, type of family, type of marriage, support of the family members, family history of mental illness, complication during pregnancy, previous bad obstetrical history, type of caesarian section, and past history of mental illness.

Section B: it consists of Modified Likert, Am I blue? Assessment scale, this tool is modified from Likert Am I Blue? By Skillman, to assess the postpartum blue among postnatal mothers. Which consist of 30 questions, every answer is rated, the maximum score given for presence of postpartum blue symptoms and minimum score for the no symptoms. The Rating scale consists of 3 scores, present (2), occasionally present (1), and not present (0)

Scoring Procedure

The level of symptoms was graded in 3 categories. They are **"Mild", "Moderate" and "Severe"**.

Table 3:1 Level of symptoms based on percentage of scores

Level of postpartum blue	Actual Scores	Percentage (%)
Mild	1 – 20	Less than 34%
Moderate	21 – 40	35 to 67%
Severe	41 – 60	68 to100%

VALIDITY

The content validity of demographic variables and questionnairefor Postpartum blue symptoms was validated in consultation with guide and experts. The experts were nursing personnel's, Gynecologists, psychologist, acupressure therapist and statisticians. The tool was modified according to the suggestions and recommendations of the experts.

RELIABILITY

The reliability of the questionnaire was tested by implementing the tool on Post cesarean section mothers with postpartum blue admitted at TPN hospital, Erode, which is the same sample area. Split half method (spearman brown

formula) was used to test the reliability of the tool and the tool was found to be reliable. **(r^1= 0.82).**

DATA COLLECTION PROCEDURE

Data collection is the gathering of the information to address the research problem. The word "data" means information i.e. systematically collected in the course of study.

Talbott (1995), refers data collection as gathering of information from the sampling unit. The researcher plan typically specifies procedures for actual collection of data. The researcher must be sure that enough material is available to complete the study that the participants are informed that the schedules do not conflict.

Permission from the concerned authority

Prior to the collection of the data, permission was obtained from the Dr. Hamsa Subramanian, MBBS, DGO, TPN Hospital, Erode.And Medical officer, Government Head Quarters Hospital, Erode.

Period of data collection

The data was collected from 11.08.2011 to 10.09.2011. The investigator collected the data from both experimental and control group at the same period. The experimental group mothers selected from TPN Hospital, Erode,

whereas control group mothers selected from Government Head Quarters Hospital, Erode. The reason for selecting two hospitals is to avoid the contamination of the samples in experimental group with control group.

Pretest

Pretest was conducted by using Modified Likert, Am I blue? Assessment scaleto assess the postpartum blue among post cesarean section mothers.

Implementation of Emotional freedom technique

Immediately after pretest, Emotional freedom technique was given to the postpartum blue mothers for the duration of 30 minutes once a day for 5 days.

Posttest / Evaluation of Emotional freedom technique

After every emotional freedom technique, by using modified Likert Am I blue? assessment Scale, post test was conducted every next day of the intervention. Totally 5 posttest was conducted.

PLAN FOR DATA ANALYSIS

1. Assessment on the level of postpartum blue among control and experimental groups of post cesarean section mothers before and after emotional freedom technique was analyzed by using frequency and percentage

2. Compare the effectiveness of emotional freedom technique on postpartum blue among control and experimental groups of post cesarean section mothers by using mean, standard deviation and mean percentage,.Paired “t” test and unpaired “t” test.
3. Association between posttest scores of postpartum blue among control and experimental groups of post cesarean section mothers with their demographic variables was analyzed by using chi-square test.

SUMMARY

The study was undertaken in TPN Hospital, and Government Head Quarters Hospital, Erode by using purposive sampling technique. The rating scale was used to assess the postpartum blue among post caesarean section mothers. The data were collected after obtaining permission from Dr.HamsaSubramaniyam, MBBS. DGO.TPN Hospital. Medical officer, Government Head Quarters Hospital, Data were planned to analysis by using descriptive and inferential statistics.

CHAPTER –IV

DATA ANALYSIS AND INTERPRETATION

Analysis is a "process of organizing and synthesizing data in such a way that research questions can be answered and hypothesis tested**", (Polit and Hungler, 2003).**

Analysis enables the researcher to reduce, summarize, organize, evaluate, interpret and communicate numerical information, **(Polit and Hungler, 2003).**

This chapter deals with the analysis and interpretation of data collected from 30 (15 control group and 15 experimental group) Post cesarean section mothers with postpartum blue by using Purposive sampling technique from TPN Hospital and Government Head Quarters Hospital, Erode, to evaluate the effectiveness of emotional freedom technique.

The data were coded and analyzed as per objectives of the study under the following headings

Section A: Description of samples characteristics.

Section B: Assess the postpartum blue among control and experimental group of post caesarean section mothers before and after emotional freedom technique.

- Frequency and percentage distribution of the control group pre and post test scores of postpartum blue among post caesarean section mothers.
- Frequency and percentage distribution of the experimental group pre and post test scores of postpartum blue among post caesarean section mothers.
- Frequency and percentage distribution of post test scores of postpartum blue among post caesarean section mothers in control and experimental group.

Section C: Compare the effectiveness of emotional freedom technique on postpartum blue among control and experimental group of post caesarean section mothers.

- Paired‘t’ test value of pre and post test scores of experimental group.
- Comparison of mean, SD, and mean percentage of control group and experimental group pre and post test scores.
- Unpaired‘t’ test value of control and experimental group post test scores.
- Comparison of mean, SD and mean percentage of control and experimental group post test scores.

Section D: Find out the association between post test scores of postpartum blue among control and experimental group of post caesarean section mothers with their demographic variables.

- Chi-square value of association between control group post test scores with their demographic variables.
- Chi-square value of association between experimental group post test scores with their demographic variables.

SECTION-A

DESCRIPTION OF SAMPLES CHARACTERISTICS

Table-4.1 Frequency and percentage distribution of control and experimental groups of post caesarean section mothers according to their demographic variables

(N_1 = 15, N_2 = 15)

Demographic variables	Control group		Experimental group	
	Frequency (N_1)	Percentage (%)	Frequency (N_2)	Percentage (%)
1.Age of the mother				
a) 18-23 years	2	13	5	33
b) 24-29 years	9	60	8	54
c) 30-35 years	4	27	2	13
2. Education of the mother				
a) No formal education	8	53	2	13
b) Primary education	3	20	3	20
c) Secondary education	1	7	3	20
d) Higher secondary education	3	20	3	20
e) Degree	0	0	4	27
3. Monthly Income				
a) Rs 3000- Rs 6000	10	67	1	6
b) Rs 7000- Rs 10,000	4	27	7	47
c) Rs 10,000 and above	1	6	7	47

4. Type of family				
a) Nuclear family	12	80	11	73
b) Joint family	3	20	4	27
5.Type of marriage				
a) Arranged marriage	9	60	8	53
b) Love marriage	6	40	7	47
6. Support of the family members				
a) Husband	11	73	11	73
b) Mother and father	1	7	1	7
c) Mother in law and father in law	1	7	2	13
d) Sisters and brothers	0	0	1	7
e) None	2	13	0	0
7. Family history of mental illness				
a) Yes	7	47	4	27
b) No	8	53	11	73
8. complication during pregnancy				
a)Present	6	40	2	13
b)Absent	9	60	13	87
9. Previous bad obstetrical History				
a) Abortion	4	27	3	20
b) Still birth	1	6	2	13
c) No	10	67	10	67

10. Type of caesarean section a) Planned/ Elective b) Emergency	2 13	13 87	2 13	13 87
11. Past history of mental illness. a) Yes b) No	2 13	13 87	1 14	7 93

Table 4.1 Reveals the frequency and percentage distribution of post caesarean section mothers according to their demographic variables.

Distribution of control and experimental group samples according to their age group depicts that, highest percentage (60% and 54%) of Post caesarean section mothers were in the age group of 24- 29 years in both the groups. However more or less similar percentage (27% and 33%) of them were in the age group of 30- 35 years in control group and 18- 23 years in experimental group and similar percentage (13%) of them were in the age group of 18- 23 years in control group, 30- 35 years in experimental group respectively, it seems that most of the mother were in the age group of 24- 29 years, (**Fig: 4.1).**

Distribution of control and experimental group samples according to their education of the mother depicts that, highest percentage (53% and 27%) of post caesarean section mothers had no formal education in control group and degree

education in experimental group. However similar percentage (20%) of post caesarean section mother had primary education, secondary education and higher secondary education in both the groups and only 13% of them had no formal education in experimental group, **(Fig: 4.2).**

Distribution of control and experimental group samples according to their monthly income reveals that, highest percentage (67%) of post caesarean section mothers were in the monthly income of Rs 3000 to Rs 6000 in control group. However similar percentage (47%) of post caesarean section mothers were in the income group of Rs 7000 - Rs 10,000 and Rs 10,000 and above in experimental group. 27% of them were in the monthly income group of Rs 7000- Rs 10,000 in control group and similar percentage (6%) of them were in the income group of Rs 10,000 and above in control group, Rs 3000- Rs 6000 in experimental group,**(Fig: 4.3).**

Distribution of control and experimental group samples according to their type of the family reveals that, highest percentage (80% and 73%) of them living in nuclear family in both the groups. And more or less similar percentages (20% and 27%) of them were living in joint family in both the groups,**(Fig: 4.4).**

Distribution of control and experimental group samples according to their type of marriage reveals that, highest percentage (60% and 53%) of post caesarean section mothers had arranged marriage. And more or less similar percentage (40%

and 47%) of post caesarean section mothers had love marriage in both the groups,**(Fig: 4.5).**

Distribution of control and experimental group samples according to their support of the family members reveals that, similar highest percentage (73%) of post caesarean section mothers had husband is the support of family members in both the groups. However more or less similar percentage (7% and 13%) of post caesarean section mothers had support of family members are mother and father, mother in law and father in law, sisters and brothers and none in both the groups,**(Fig: 4.6).**

Distribution of control and experimental group samples according to their family history of mental illness reveals that, highest percentage (53% and 73%) of post caesarean section mothers had no family history of mental illness in both the groups. And more or less similar percentage (47% and 27%) of post caesarean section mothers had family history of mental illness in both the groups,**(Fig: 4.7).**

Distribution of control and experimental group samples according to their complication during pregnancy reveals that, highest percentage (60% and 87%) of post caesarean section mothers had no complication during pregnancy in both the groups. And more or less similar percentage (40% and 13%) of post caesarean section mothers had complication during pregnancy in both the groups,**(Fig: 4.8).**

Distribution of control and experimental group samples according to their previous bad obstetrical history reveals that, similar highest percentage (67%) of post caesarean section mothers had no previous bad obstetrical history in both the groups. However more or less similar percentage (27% and 20%) of post caesarean section mothers had abortion as a previous bad obstetrical history. In control group 6% of them had still birth is a previous bad obstetrical history, were as in experimental group 13% of them had still birth,**(Fig: 4.9).**

Distribution of control and experimental group samples according to type of caesarean section reveals that highest percentage (87%) of post caesarean section mothers had emergency caesarean section in both the groups. And more or less similar percentage (13%) of post caesarean section mothers had planned caesarean section in both the groups,**(Fig: 4.10).**

Distribution of control and experimental group samples according to their past history of mental illness reveals that, highest percentage (87% and 93%) of post caesarean section mothers had no past history of mental illness in both the groups. And more or less similar percentage (13% and 7%) of post caesarean section mothers was having past history of mental illness in both the groups,**(Fig: 4.11).**

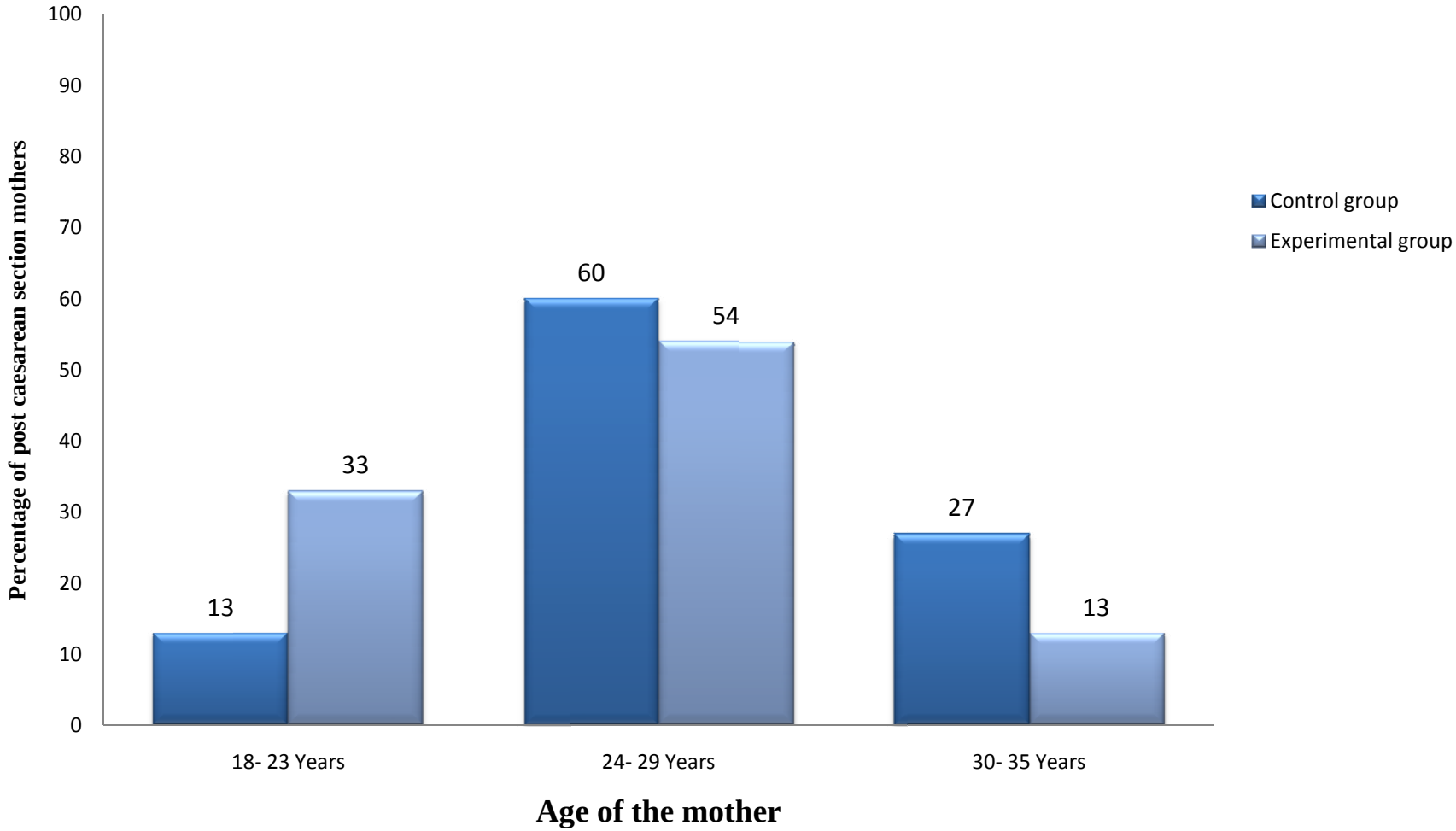


Fig.4.1 Bar diagram shows the percentage distribution of post caesarean section mothers according to their age group

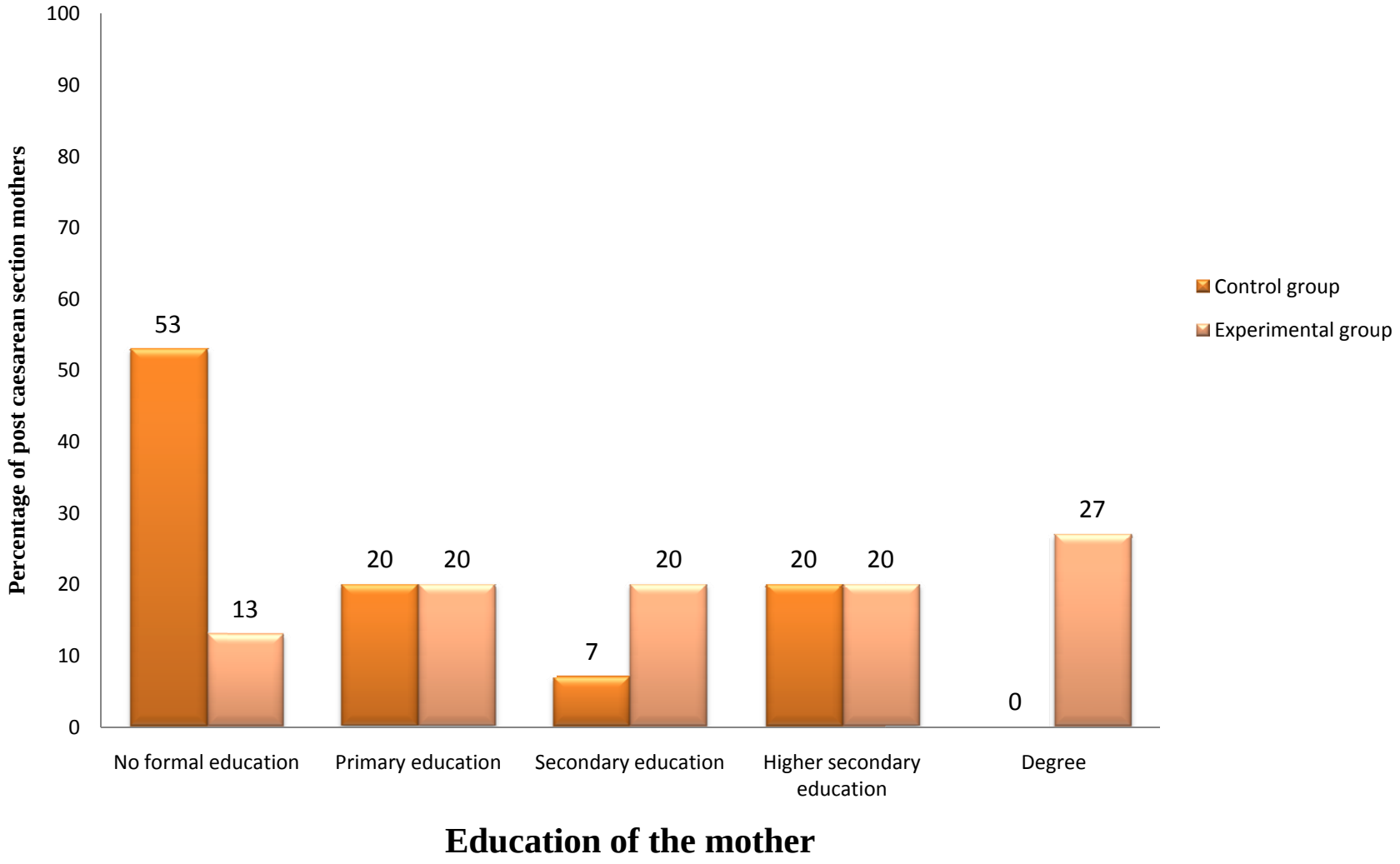


Fig 4.2 Bar diagram shows the percentage distribution of post caesarean section mothers according to their educational status.

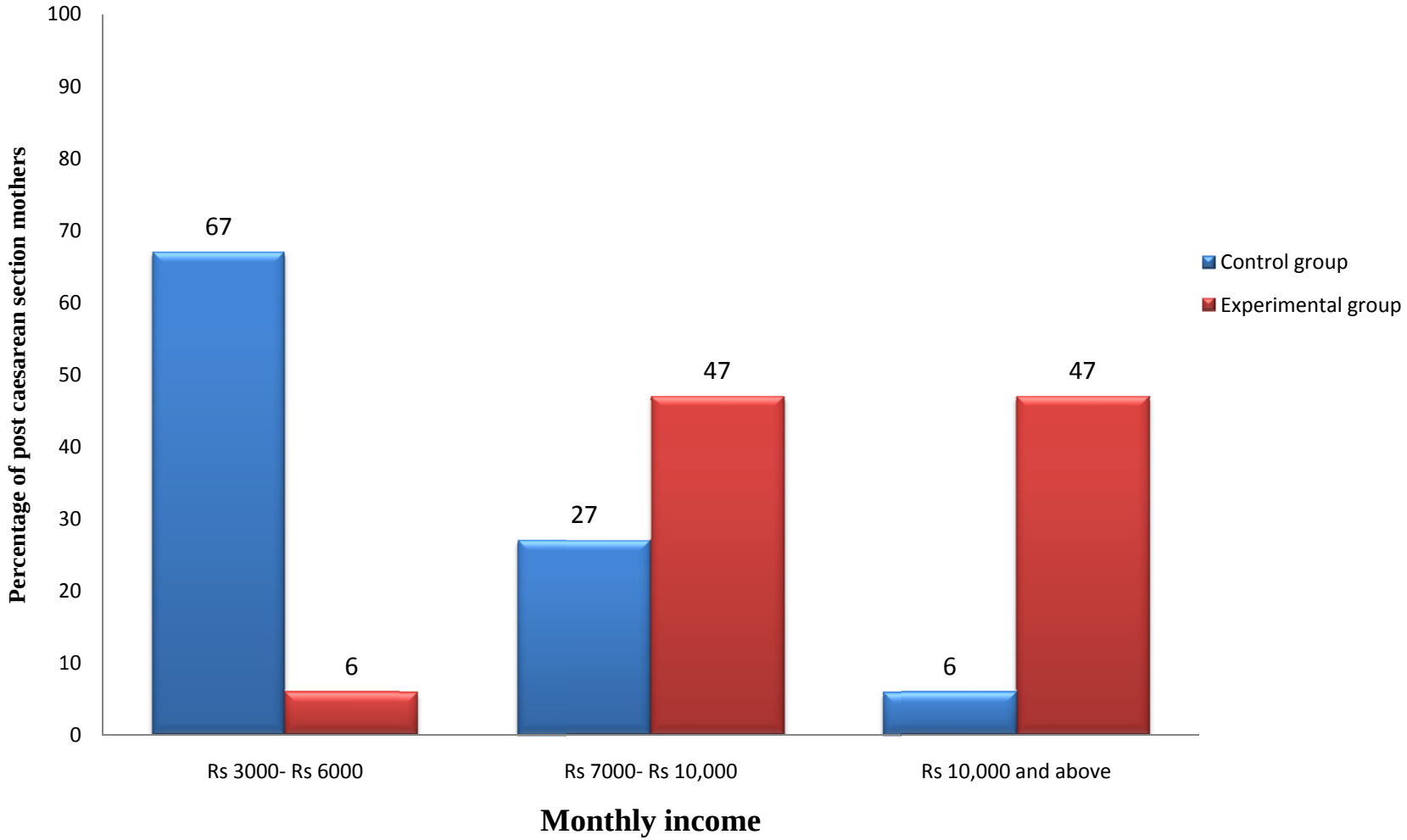


Fig.4.3 Bar diagram shows the percentage distribution of post caesarean section mothers according to their monthly income

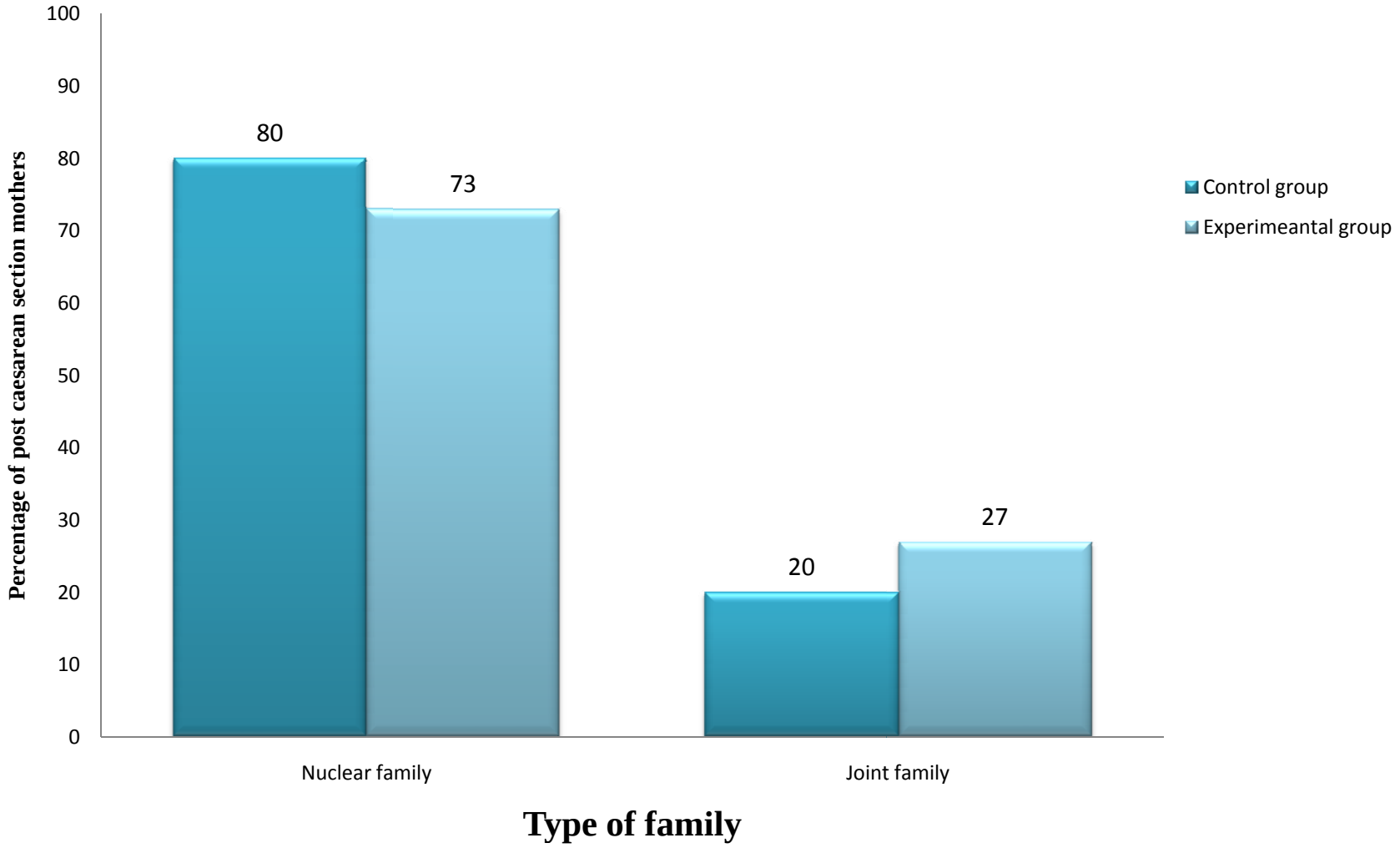


Fig.4.4 Bar diagram shows the percentage distribution of post caesarean section mothers according to their type of family

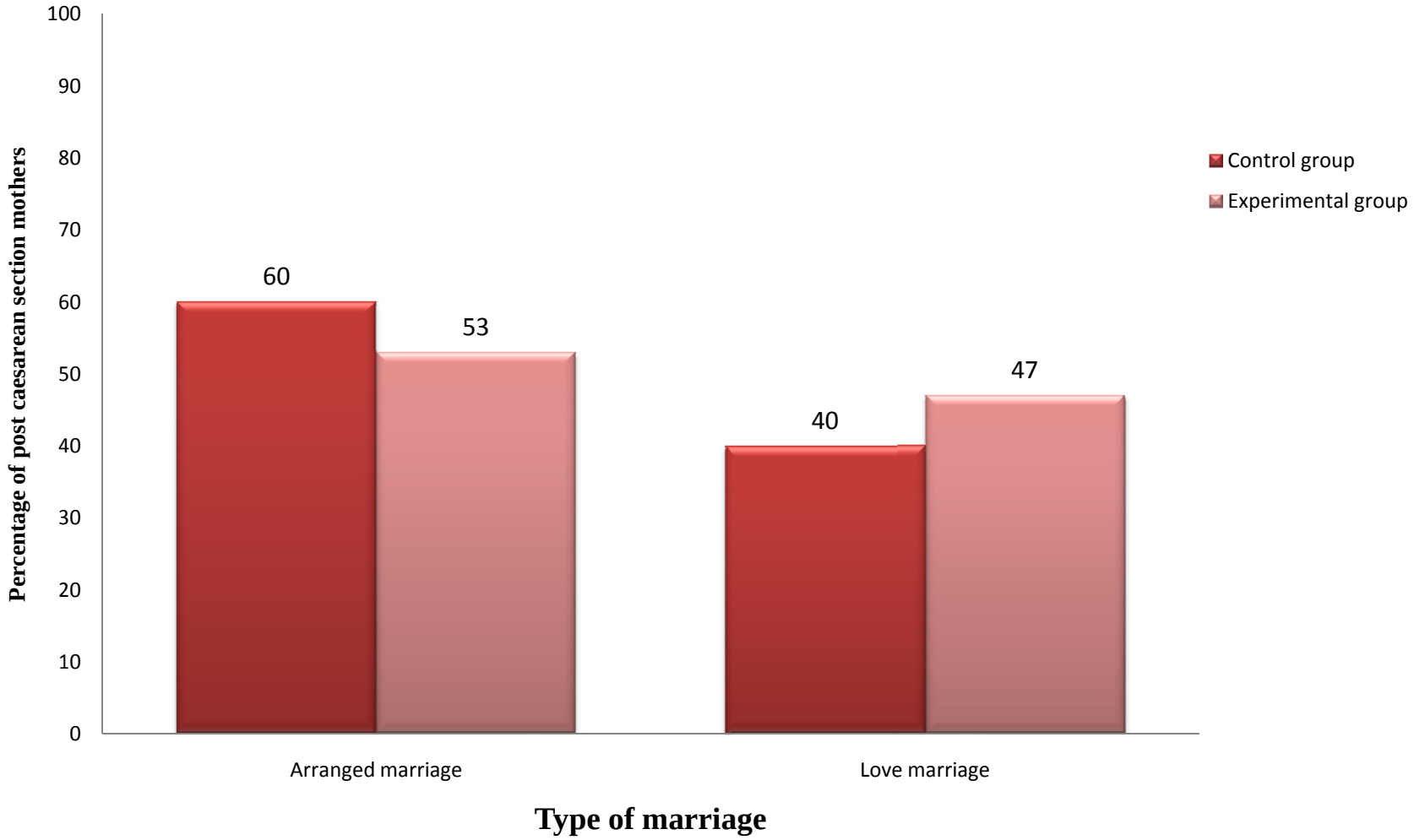


Fig.4.5 Bar diagram shows the percentage distribution of post caesarean section mothers according to their type of marriage

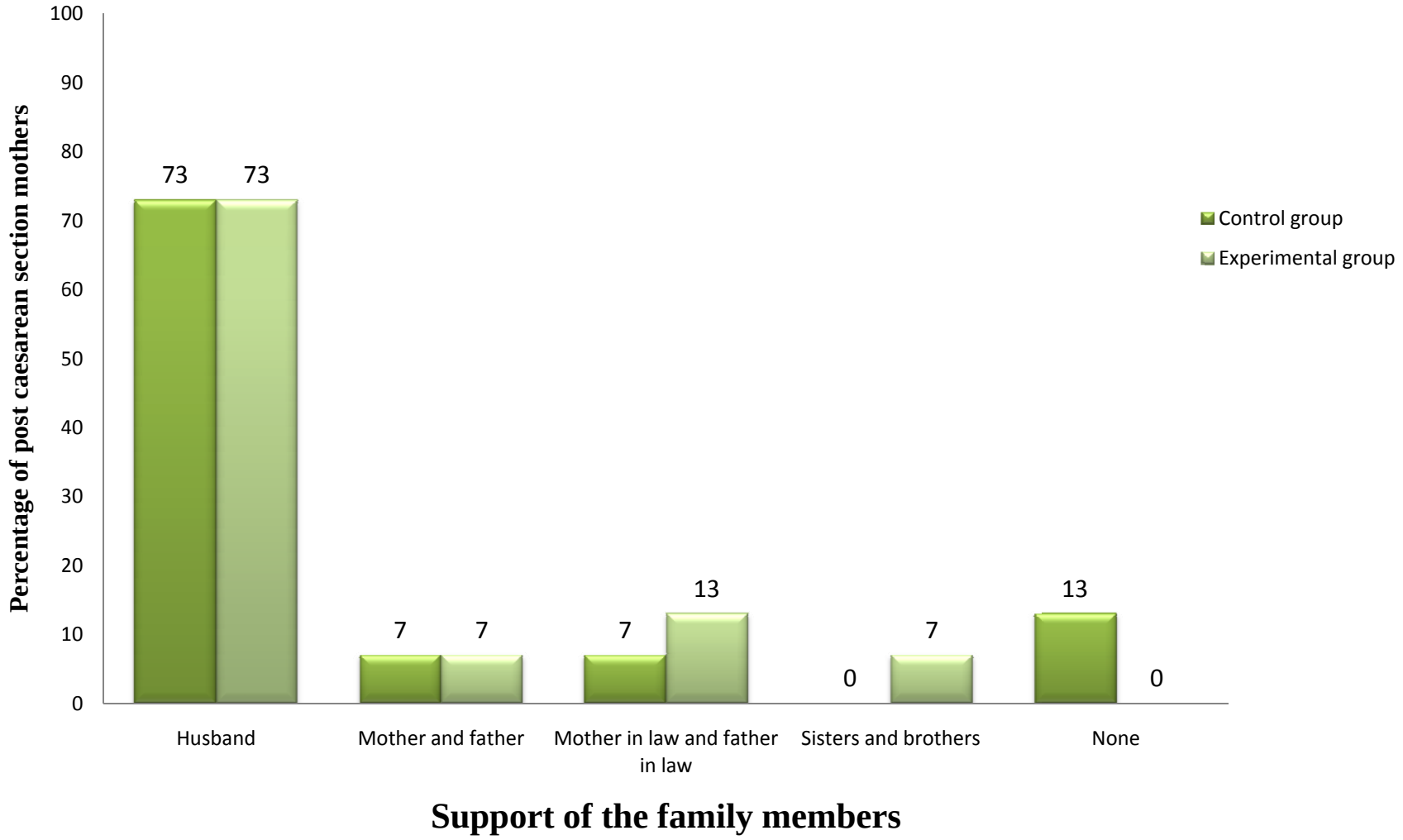


Fig.4.6 Bar diagram shows the percentage distribution of post caesarean section mothers according to their support of the family members

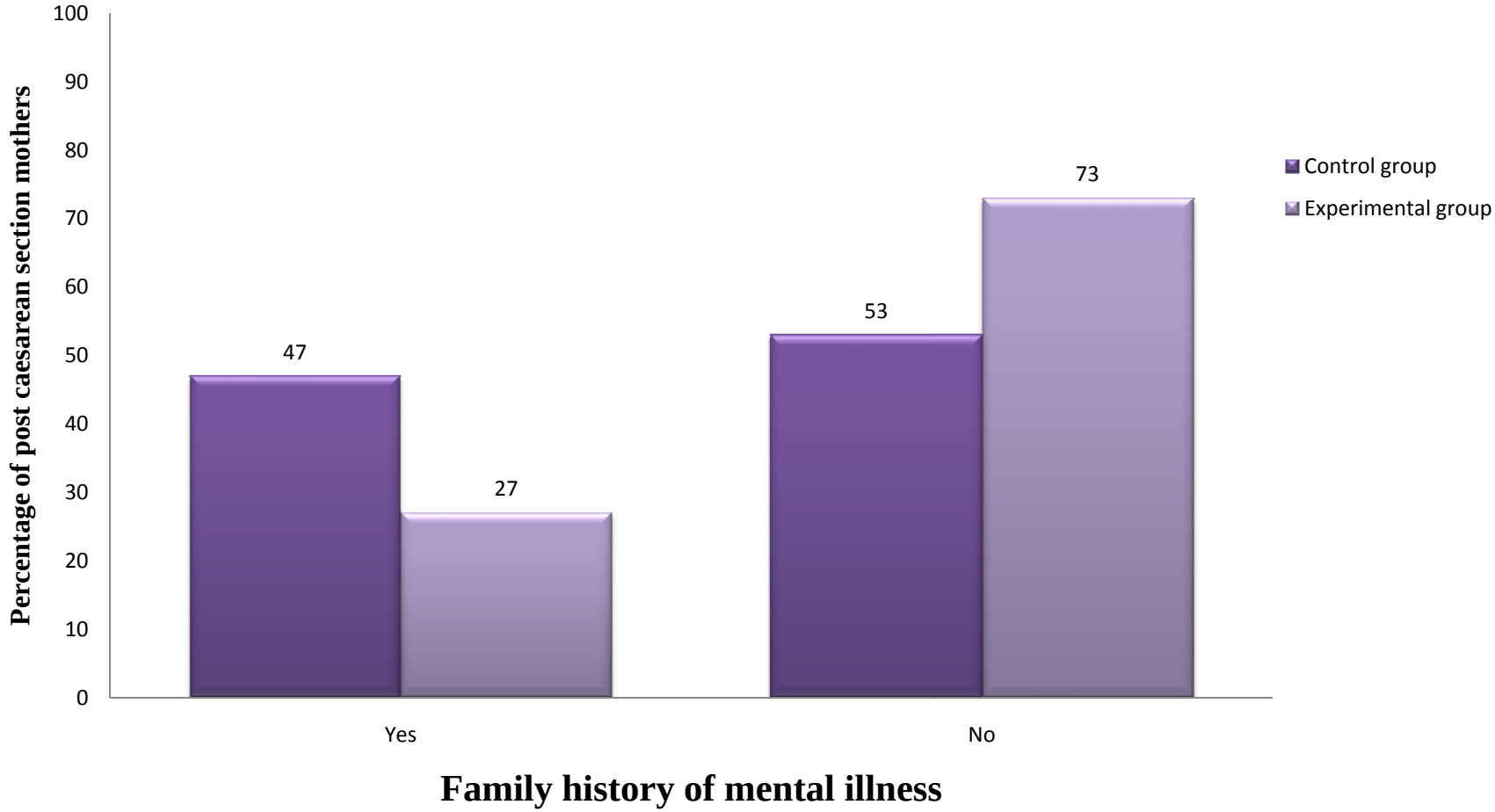


Fig.4.7 Bar diagram shows the percentage distribution of post caesarean section mothers according to their family history of mental illness

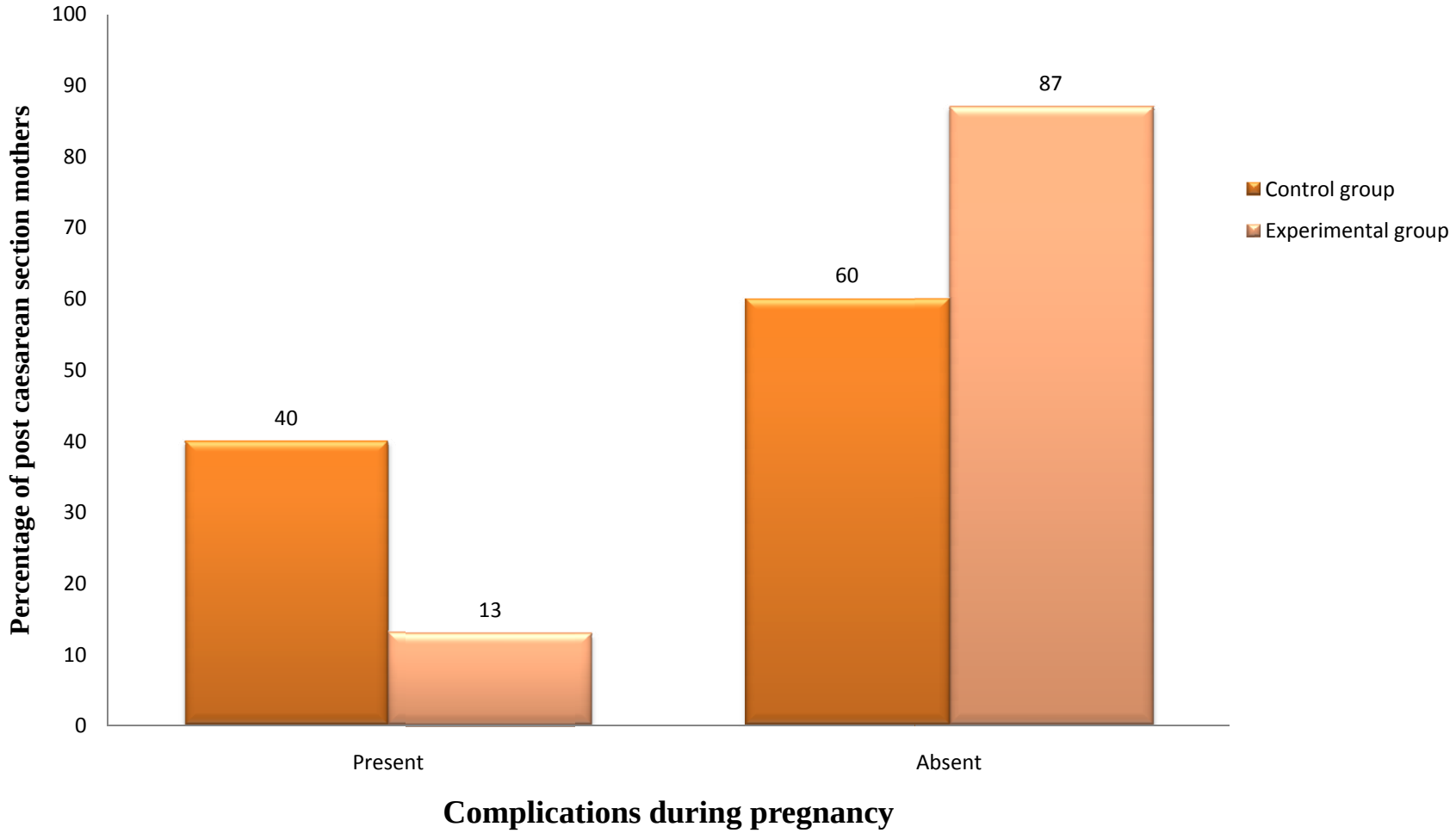


Fig.4.8 Bar diagram shows the percentage distribution of post caesarean section mothers according to their complication during pregnancy

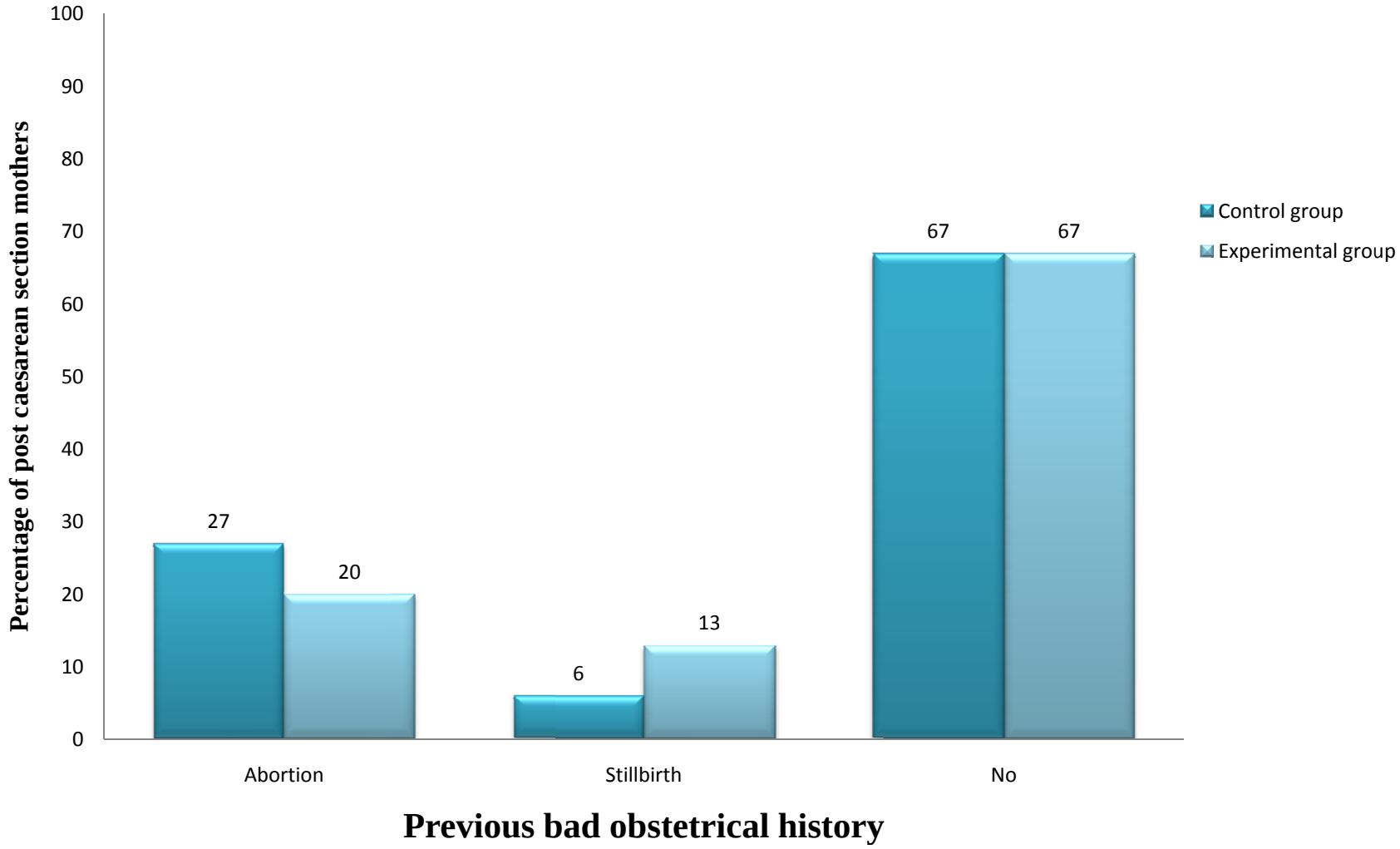


Fig.4.9 Bar diagram shows the percentage distribution of post caesarean section mothers according to their previous bad obstetrical history

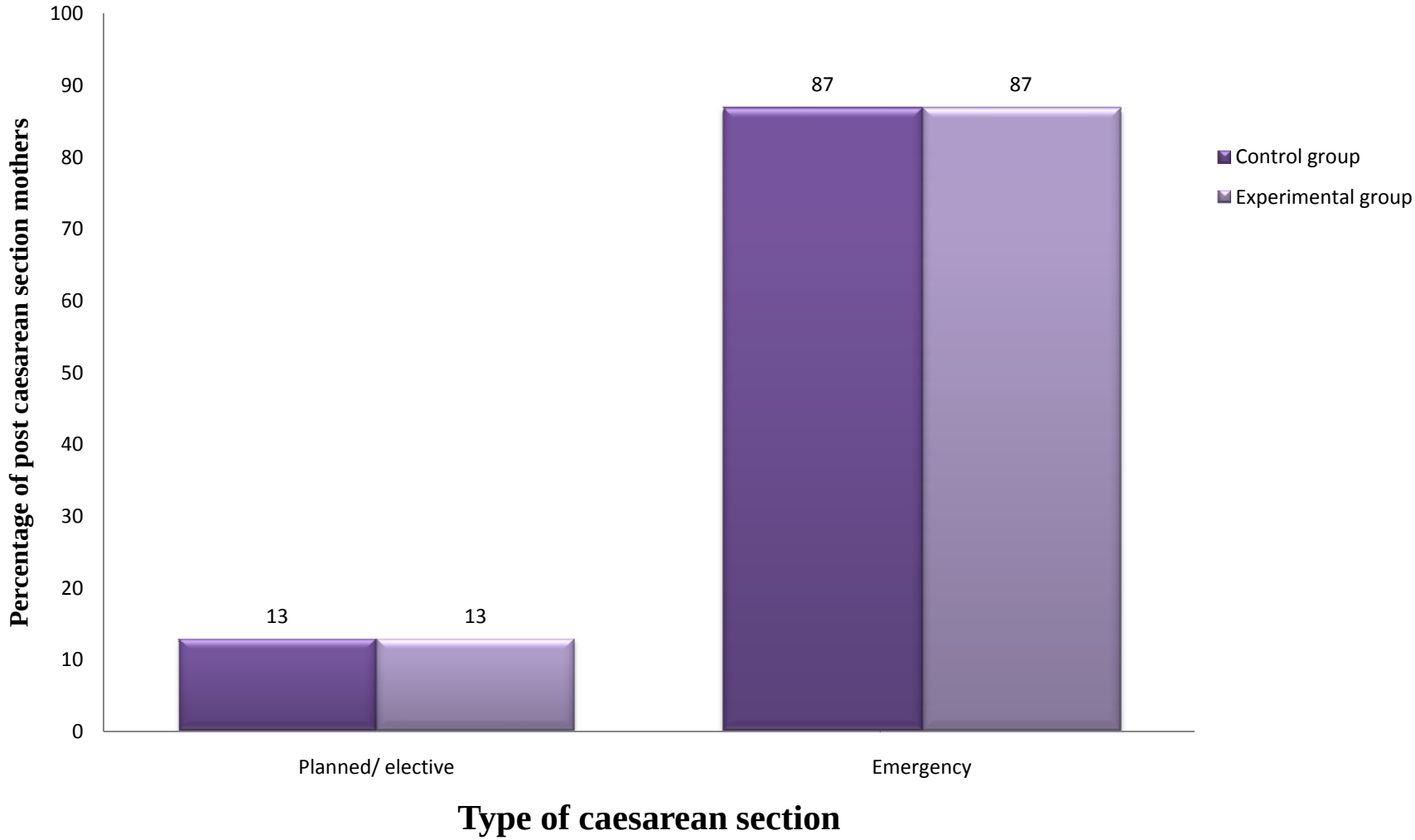


Fig.4.10 Bar diagram shows the percentage distribution of post caesarean section mothers according to their type of caesarean section

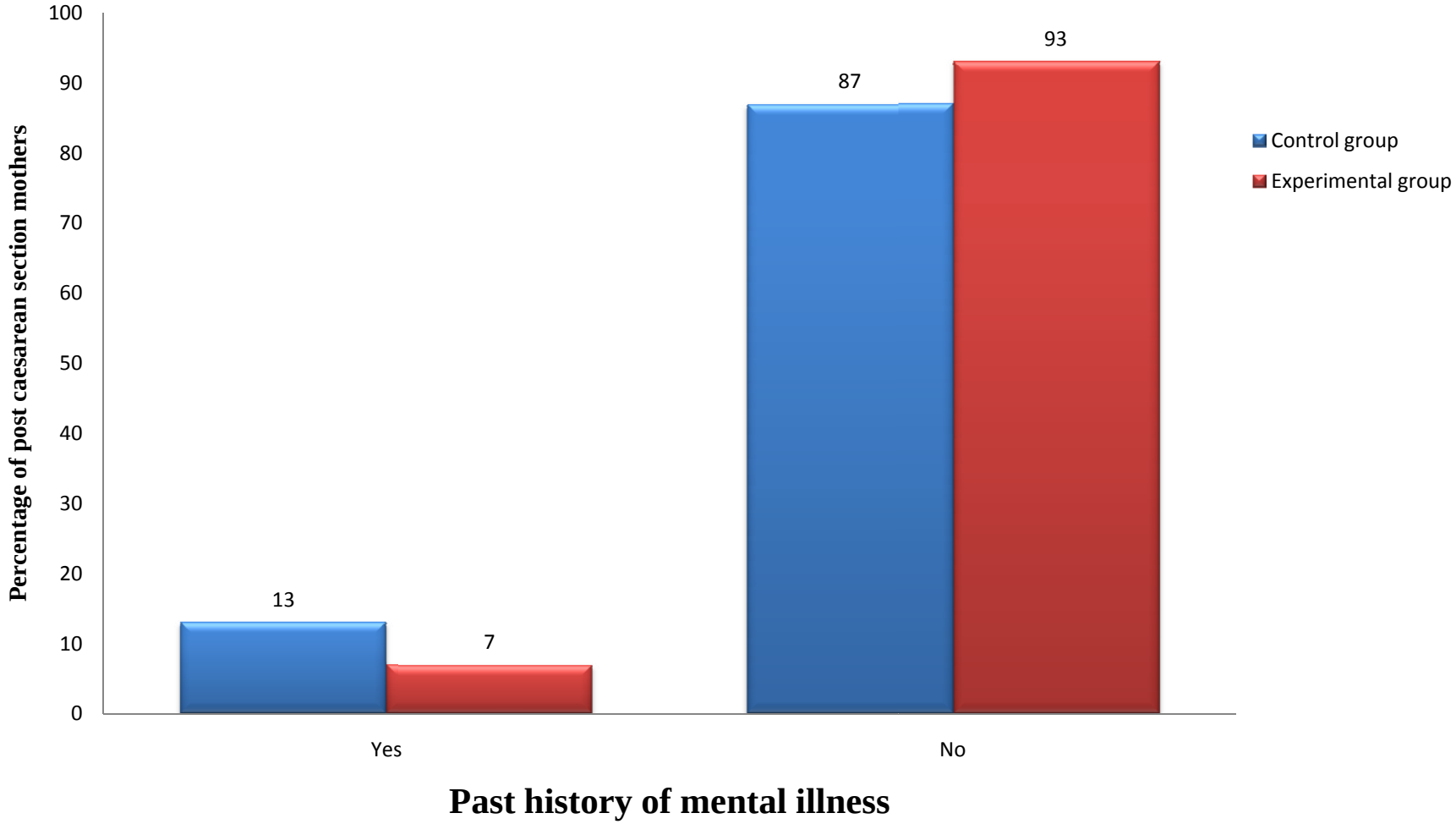


Fig.4.11 Bar diagram shows the percentage distribution of post caesarean section mothers according to their past history of mental illness

SECTION-B

ASSESS THE POSTPARTUM BLUE AMONG CONTROL AND EXPERIMENTAL GROUP OF POST CAESAREAN SECTION MOTHERS BEFORE AND AFTER EMOTIONAL FREEDOM TECHNIQUE

Table 4.2 Frequency and percentage distribution of the control group pre and post test scores of postpartum blue among post caesarean section mothers

(N_1=15)

Level of postpartum blue among post caesarean section mother	Control Group			
	Pretest scores		Posttest scores	
	Frequency (N)	Percentage (%)	Frequency (N)	Percentage (%)
Mild	0	0	7	47
Moderate	1	7	8	53
Severe	14	93	0	0

Frequency and percentage distribution of control group pretest and post test scores of postpartum blue among post caesarean section depicts that, in pretest majority (93%) of mothers were had severe postpartum blue and only (7%) of mothers were had moderate postpartum blue, whereas in posttest majority (53%) of mothers were had moderate blue and (47%) of mothers were had mild blue. It seems that without intervention there is a mild change in the postpartum blue of caesarean section mothers.

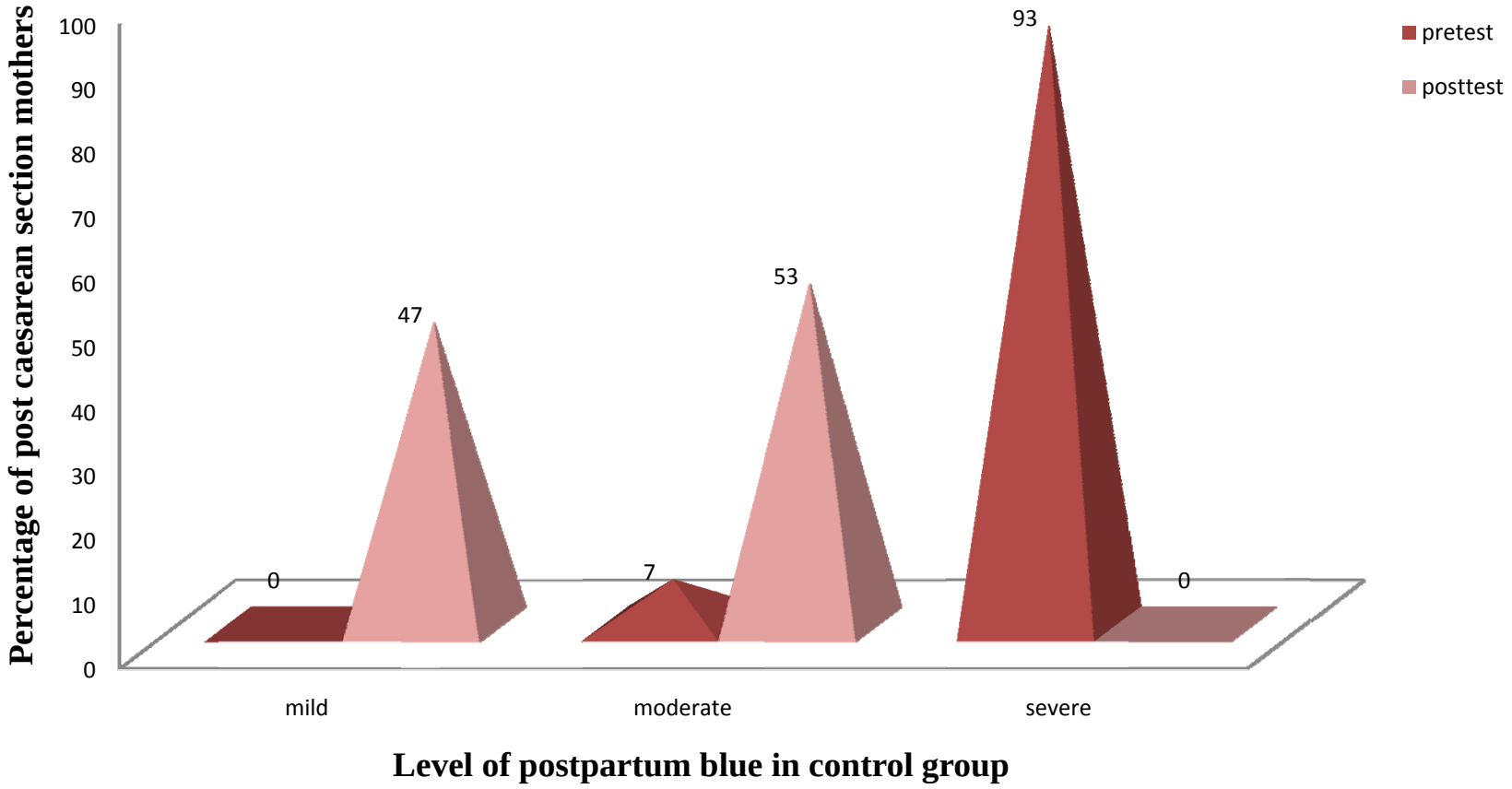


Fig.4.12 Bar diagram shows the percentage distribution of the control group pre and posttest scores of postpartum blue among post caesarean section mothers.

Table 4.3 Frequency and percentage distribution of the experimental group pre and post test scores of postpartum blue among post caesarean section mothers.

(N_2 = 15)

Level of postpartum blue among post caesarean section mother	**Experimental Group**			
	Pretest scores		**Posttest scores**	
	Frequency (N_2)	**Percentage (%)**	**Frequency (N_2)**	**Percentage (%)**
Mild	0	0	14	93
Moderate	5	33	1	7
Severe	10	67	0	0

Frequency and percentage distribution of experimental group pretest and post test scores of postpartum blue among post caesarean section mothersdepicts that, in pretest majority (67%) of mothers were had severe symptoms, only (33%) of mothers had moderate symptoms, whereas in posttest most (93%) of mothers were had mild symptoms, and (7%) of mothers were had moderate symptoms. It

seems that the emotional freedom technique on postpartum blue among post caesarean section mothers was effective.

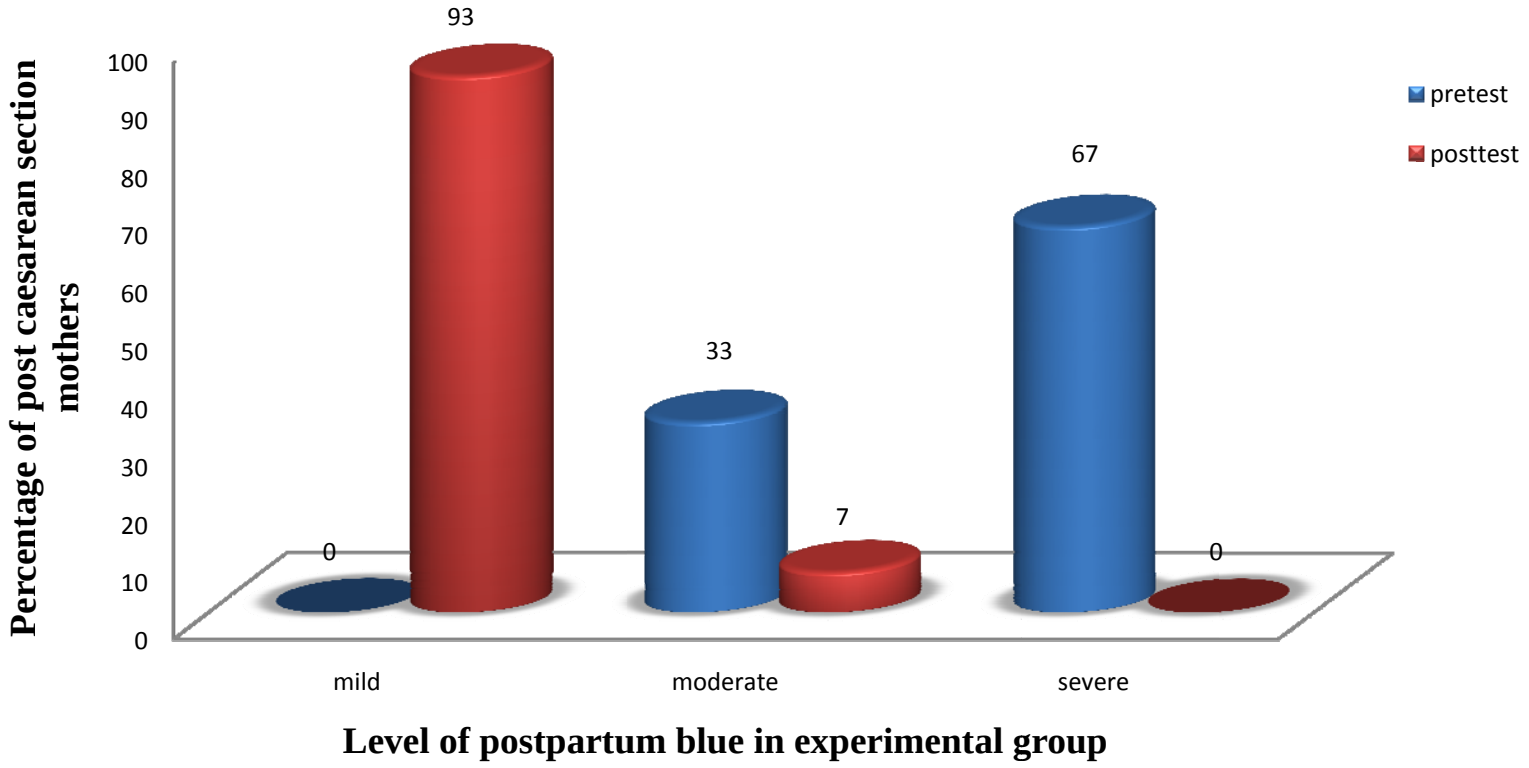


Fig.4.13 Bar diagram shows the percentage distribution of the experimental group pre and posttest scores of postpartum blue among post caesarean section mothers.

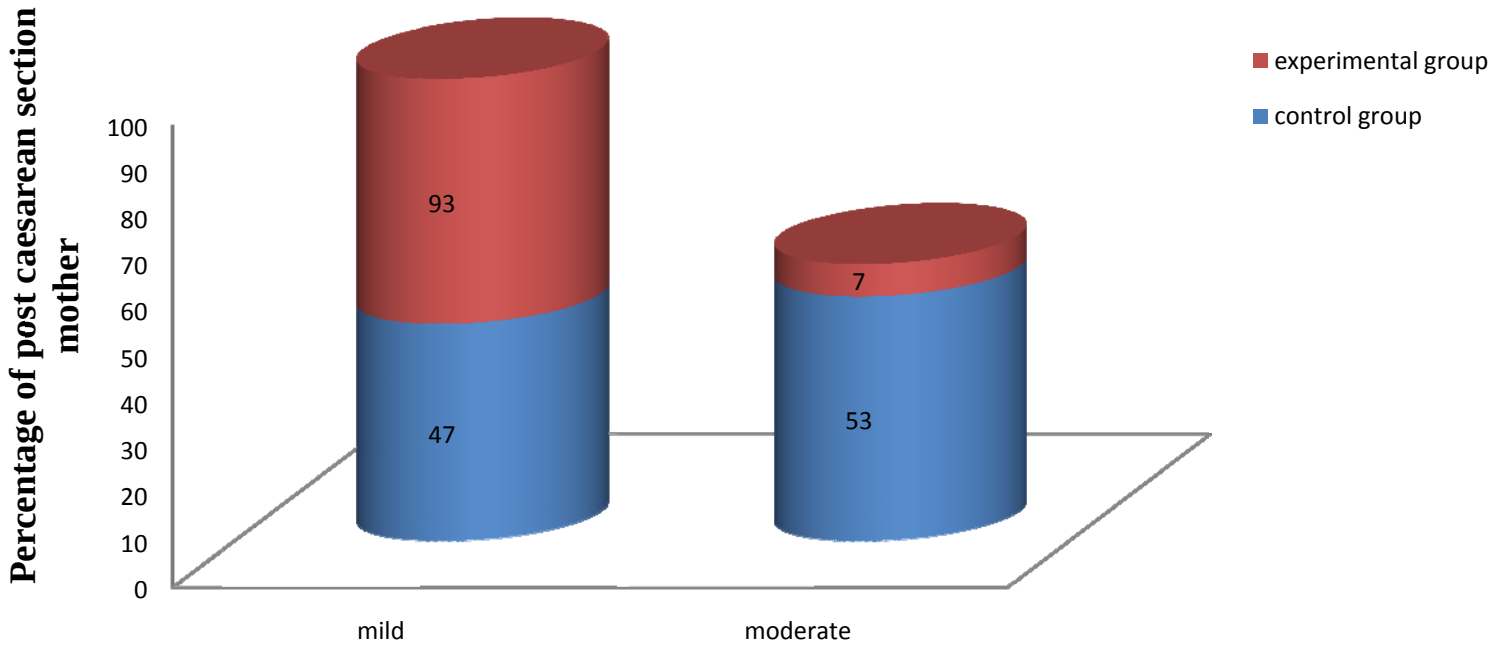
Table 4.4 Frequency and percentage distribution of post test scores of postpartum blue among post caesarean section mothers in control group and experimental group

(N_1= 15, N_2 = 15)

Level of postpartum blue among post caesarean section mother	Post test scores			
	Control group		Experimental group	
	Frequency) (N_1)	Percentage (%)	Frequency (N_2)	Percentage (%)
Mild	7	47	14	93
Moderate	8	53	1	7
Severe	0	0	0	0

Frequency and percentage distribution of control and experimental group post test scores of postpartum blue among post caesarean section mothers depicts that, In Control group (53%) of mothers were had moderate symptoms and (47%) of mothers were had mild symptoms. whereas in Experimental group most (93%) of mothers

werehad mild symptoms and (7%) of mothers were had moderate symptoms. It seems that emotional freedom technique on postpartum blue among post caesarean section mothers was effective.



Level of postpartum blue in control and experimental group

Fig.4.14 Bar diagram shows the percentage distribution of posttest scores of postpartum blue among post caesarean section mothers in control group and experimental group.

SECTION-C

COMPARE THE EFFECTIVENESS OF EMOTIONAL FREEDOM TECHNIQUE ON POSTPARTUM BLUE AMONG CONTROL AND EXPERIMENTAL GROUPS OF POST CAESAREAN SECTION MOTHERS.

The effectiveness of the emotional freedom technique was tested by using paired‘t’ test and unpaired ‘t’ test . Paired ‘t’test and unpaired ‘t’test was calculated to analyze the difference in pre and post test scores of post caesarean section mothers in the control group and experimental group and post test scores of post caesarean section mothers in both the groups.

Table-4.5 Paired ‘t’test and Unpaired‘t’ test value of control group and experimental group

Postpartum blue	**‘t’ value**	**Table value**	**Level of significant (P)**
Control group (pre and posttest)	12.3*	2.145	P < 0.05 Significant
Experimental group (pre and posttest)	20.6*	2.145	P < 0.05 Significant
Control and experimental group (posttest)	5.59**	2.05	P < 0.05 Significant

Paired’t’ test value** * Unpaired‘t’ test**

Paired ‘t’test was calculated to analyze the effectiveness between pre and post test scores of control group on postpartum blue. The Paired’t’ test value was 12.3 when compared to table value 2.145 it is high. It seems that there is significant relationship between emotional freedom technique and postpartum blue.

Paired ‘t’test was calculated to analyze the effectiveness between pre and post test scores of experimental group on postpartum blue. The Paired’t’ test value was 20.6 when compared to table value 2.145 it is high. It seems that there is significant relationship between emotional freedom technique and postpartum blue.

Unpaired ‘t’test was calculated to analyze the effectiveness between control and experimental groups post test scores on postpartum blue among post caesarean section mothers. The Unpaired‘t’ value was 5.59 when compared to table value 2.05 is high. It seems that there is significant relationship between emotional freedom technique and post caesarean section mothers in control and experimental group.

Table-4.6 Comparison of mean, SD, and mean percentage of control group and experimental group

Post caesarean section mothers	Maximum Score	Postpartum blue						Difference in mean %
		Pretest scores			Post test scores			
		Mean	SD	Mean %	Mean	SD	Mean %	
Control group	60	47	7	78	21	6	35	43
Experimental group	60	43	7	72	12	4	20	52
Difference in mean percentage of control and experimental group post test scores							**15**	

Comparison of mean, SD, mean percentage of control group pre and post test scores reveals that, the overall mean percentage of score for pretest was 78% whereas in posttest it was 35% revealing a difference of 43%. It depicts that the without intervention of emotional freedom technique related to postpartum blue was little effective among post caesarean section mothers.

Comparison of mean, SD, mean percentage of experimental group pre and post test scores reveals that, the overall mean percentage of score for pretest was 72%,

whereas in posttest it was 20% revealing a difference of 52%. It depicts that the emotional freedom technique related to postpartum blue was effective among post caesarean section mothers.

Comparison of mean, SD, mean percentage of post test scores of both control and experimental groups depicts that, the overall mean percentage of score in control group was 35%, whereas in experimental group the mean percentage was 20% revealing a difference of 15%. It depicts that the emotional freedom technique related to postpartum blue was effective among post caesarean section mothers.

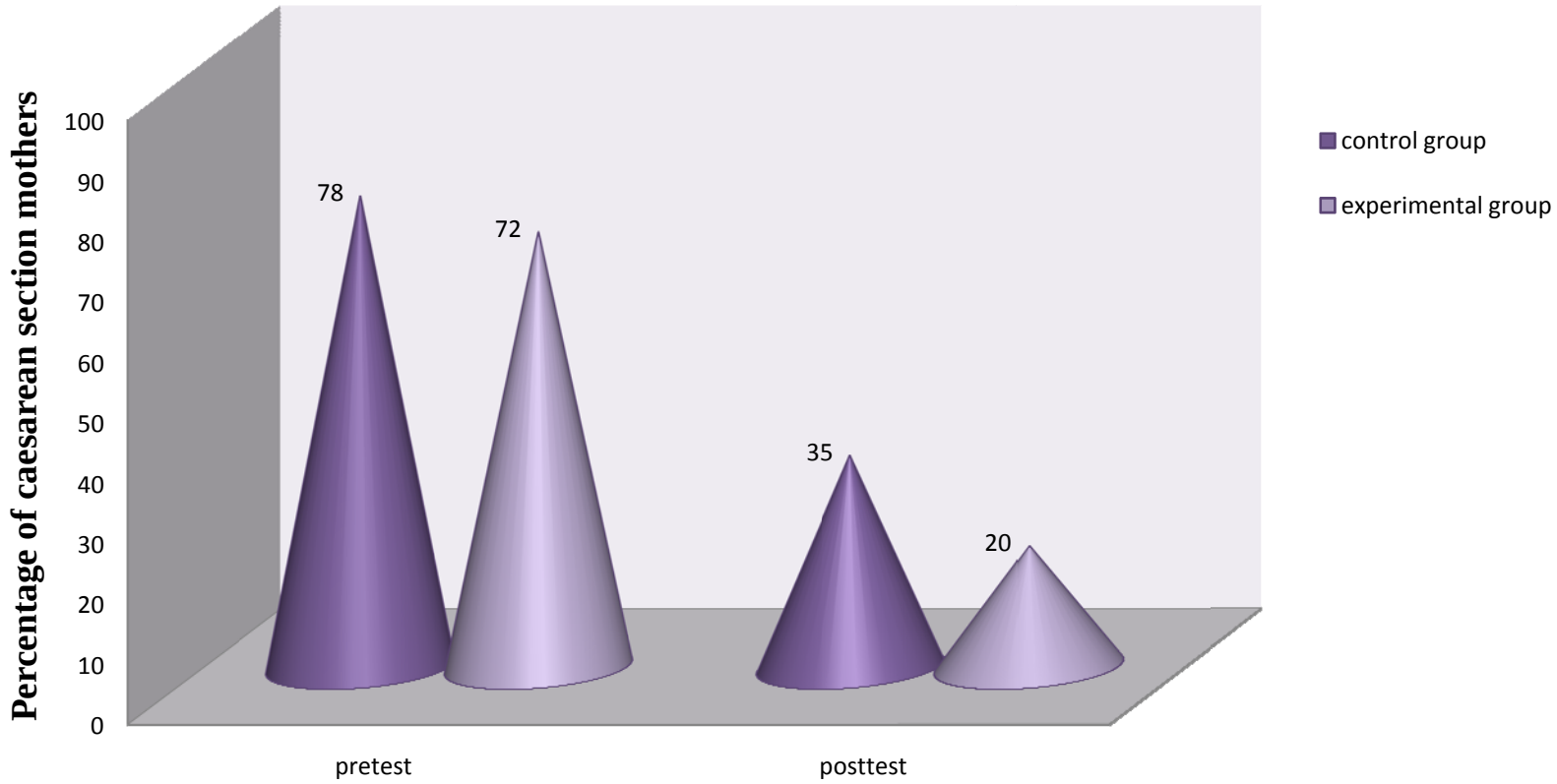


Fig.4.15 Bar diagram shows the mean percentage of postpartum blue among post caesarean section mothers in control group and experimental group.

SECTION-D

FIND OUT THE ASSOCIATION BETWEEN POST TEST SCORES OF POSTPARTUM BLUE AMONG CONTROL AND EXPERIMENTAL GROUP OF POST CAESAREAN SECTION MOTHERS WITH THEIR DEMOGRAPHIC VARIABLES.

Chi-square calculated to analyze the association between demographic variables with the control and experimental groups post test scores on postpartum blue among post caesarean section mothers.

Table-4.7 Chi-square value of association between control group post test scores with their demographic variables

Demographic variables	Df	Chi-square	Table Value	Level of significance
Age of the mother	4	0.042	9.49	P> 0.05 Not significant
Education of the mother	8	1.606	15.51	P > 0.05 Not significant
Monthly income	4	2.342	9.49	P > 0.05 Not significant
Type of the family	2	0.602	5.99	P > 0.05 Not significant
Type of marriage	2	3.615	5.99	P > 0.05 Not significant
Support of the family members	8	4.095	15.51	P > 0.05 Not significant

Family history of mental illness	2	3.242	5.99	P > 0.05 Not significant
Complication during pregnancy	2	0.043	5.99	P > 0.05 Not significant
Previous bad obstetrical history	4	2.344	9.49	P > 0.05 Not significant
Type of caesarean section	2	2.02	5.99	P > 0.05 Not significant
Past history of mental illness	2	2.641	5.99	P > 0.05 Not significant

P > 0.05 No Significant

Chi-square was calculated to find out the association between control group post test scores of the post caesarean section mothers with their demographic variables regarding emotional freedom technique on postpartum blue.

It reveals that there was no significant association between the post test scores of control group when compared to age, education, monthly income, type of the family, type of marriage, support of the family members, family history of mental illness, complication during pregnancy, previous bad obstetrical history, type of caesarean section and past history of mental illness, (**P > 0.05).**

It seems that emotional freedom technique was effective to all post caesarean section mothers irrespective of their demographic variables.

Table-4.8 Chi-square value of association between experimental group post test scores with their demographic variables

Demographic variables	Df	Chi-square	Table Value	Level of significance
Age of the mother	4	0.9	9.49	P> 0.05 Not significant
Education of the mother	8	7	15.51	P > 0.05 Not significant
Monthly income	4	16	9.49	**P < 0.05 significant**
Type of the family	2	0.3	5.99	P > 0.05 Not significant
Type of marriage	2	1	5.99	P > 0.05 Not significant
Support of the family members	8	16	15.51	**P < 0.05 significant**
Family history of mental illness	2	0.38	5.99	P > 0.05 Not significant
Complication during pregnancy	2	0.16	5.99	P > 0.05 Not significant
Previous bad obstetrical history	4	0.54	9.49	P > 0.05 Not significant
Type of caesarean section	2	0.16	5.99	P > 0.05 Not significant
Past history of mental illness	2	0.07	5.99	P > 0.05 Not significant

P > 0.05 No Significant **P < 0.05 Significant**

Chi-square was calculated to find out the association between experimental group post test scores of the post caesarean section mothers with their demographic variables regarding emotional freedom technique on postpartum blue.

It reveals that there was no significant association between the post test scores of experimental group when compared to age, education, type of the family, type of marriage, family history of mental illness, complication during pregnancy, previous bad obstetrical history, type of caesarean section and past history of mental illness, ($P > 0.05$). There is a significant association found between the post test scores of experimental group when compared to monthly income and support of the family members ($P < 0.05$). It seems that emotional freedom technique was effective to all post caesarean section mothers irrespective of their demographic variables.

SUMMARY

This chapter deals with analysis and interpretation of data collected to evaluate the effectiveness of emotional freedom technique on postpartum blue. Findings revealed that mean post test scores of woman in control group 35%, whereas in experimental group post test score was 20%. It indicates that emotional freedom technique was effective among post caesarean section mothers. The

paired ‘t’ test and unpaired ‘t’test showed there is moderately significant difference in emotional freedom technique on postpartum blue among post caesarean section mothers and chi-square test showed no association between their demographic variables with control and experimental groups post test scores.

CHAPTER – V

DISCUSSION

This chapter deals with the discussion which was based on the findings obtained from the statistical analysis and its relation to the objectives of the study, the conceptual frame work and the related literature.

This study was used to assess the effectiveness of emotional freedom technique on Postpartum blue among post caesarean section mothers at selected Hospitals, Erode. The following were the objectives of this study.

OBJECTIVES

1. To assess the level of postpartum blue among control and experimental groups of post cesarean section mothers before and after emotional freedom technique.

2. To compare the effectiveness of emotional freedom technique on postpartum blue among control and experimental groups of post cesarean section mothers.

3. To find out the association between posttest scores of postpartum blue among control and experimental groups of

post cesarean section mothers with their demographic variables.

Objective 1

I. To assess the level of postpartum blue among control and experimental group of post caesarean section mothers before and after emotional freedom technique.

1. Frequency and percentage distribution of control group pretest and post test scores of postpartum blue among post caesarean section mothers depicts that,

a. In pretest majority (93%) of mothers were had severe postpartum blue and 7% of mothers were had moderate postpartum blue.
b. In posttest majority (53%) of mothers were had moderate blue and 47% of mothers were had mild blue
c. It seems that without intervention there is a mild change in the postpartum blue of caesarean section mothers.

2. Frequency and percentage distribution of Experimental group pretest and post test scores of postpartum blue among post caesarean section mothers depicts that,

a. In pretest majority (67%) of mothers were had severe postpartum blue, 33% of mothers had moderate blue.
b. In posttest most (93%) of mothers were had mild postpartum blue, 7% of mothers were had moderate blue and no one were had severe blue.
c. It seems that the emotional freedom technique on postpartum blue was effective among post caesarean section mothers.

3. Frequency and percentage distribution of experimental and control group post test scores of postpartum blue among post caesarean section mothers depicts that,

a. In Control group 53% of mothers were had moderate postpartum blue and 47% of mothers were had mild blue.
b. In Experimental group most (93%) of mothers were had mild blue and 7% of mothers were had moderate symptoms and no one were had severe blue.

Hypothesis 1:

There is a significant level of postpartum blue among control and experimental groups of post cesarean section mothers before and after emotional freedom technique. So this hypothesis is accepted.

Objective 2

II. To compare the effectiveness of Emotional freedom technique on postpartum blue among control and experimental group of post caesarean section mothers.

1. The Paired't' test value for postpartum blue among control group was 12.3 when compared to table value 2.145 it is high.
2. The Paired't' test value for postpartum blue among experimental group was 20.6 when compared to table value 2.145 it is high.
3. The Unpaired't' value for postpartum blue in control and experimental group post test scores was 5.59 when compared to table value 2.05 is high.
4. Comparison of mean, SD, and mean percentage of control group and experimental group

Control group

- In pretest the Overall mean, standard deviation was 47±7 and mean percentage was 78%,
- In posttest the Overall mean, standard deviation was 21±6 and mean percentage was 35%.
- Overall mean difference in percentage was 43%.

Experimental group

- In pretest the Overall mean standard deviation was 43 ± 7 and mean percentage was, 72%.
- In posttest the Overall mean, standard deviation was 12 ± 4. And mean percentage was, 20%.
- Overall mean difference in percentage was 52%.

Control and experimental group

Overall mean difference in control and experimental post test score was 15%.

Hypothesis 2:

There is a significant effectiveness of emotional freedom technique on postpartum blue among post cesarean section mother in experimental group than control group. So this hypothesis is accepted.

Objective 3

III. To find out the association between post test scores of postpartum blue among control and experimental group of post caesarean section mothers with their demographic variables

1. Chi-square was calculated to find out the association between control group post test scores of the post caesarean section mothers with their

demographic variables regarding Emotional freedom technique on postpartum blue.

It reveals that there was no significant association between the post test scores of control group when compared to age, education, monthly income, type of the family, type of marriage, support of the family members, family history of mental illness, complication during pregnancy, previous bad obstetrical history, type of caesarean section and past history of mental illness, (**P > 0.05).**

a) Hence the differences observed in the mean scores values were only by chance and not true difference.
b) It seems that emotional freedom technique was effective to all post caesarean section mothers irrespective of their demographic variables.

2. Chi-square was calculated to find out the association between experimental group post test scores of the post caesarean section mothers with their demographic variables regarding Emotional freedom technique on postpartum blue.

a) It reveals that there was no significant association between the post test scores of experimental group when compared to age, education, type of the family, type of marriage, family history of mental illness,

complication during pregnancy, previous bad obstetrical history, type of caesarean section and past history of mental illness, ($P > 0.05$). There is a significant association found between the post test scores of experimental group when compared to monthly income and support of the family members ($P < 0.05$).

b) Hence the differences observed in the mean scores values were only by chance and not true difference.

c) It seems that emotional freedom technique was effective to all post caesarean section mothers irrespective of their demographic variables.

Hypothesis: 3

There is a significant association between post test scores of postpartum blue among experimental and control groups of post cesarean section mothers with their demographic variables, so the hypothesis is rejected.

CHAPTER - VI

SUMMARY, CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

This chapter deals with the summary of the study, its findings, conclusion and the implications for nursing administration, nursing practice, nursing education and nursing research. This study has been started with a few limitations and ends with suggestions and recommendations for research in future.

SUMMARY

Postpartum blue management is widely discussed in many settings including journals and innumerable studies in the medical and nursing literature. The topic is of great concern because of increase complications like postpartum depression and postpartum psychosis.

The main focus of the study was to evaluate the effective of Emotional freedom technique on postpartum blue among post caesarean section mothers. An extensive review of literature, professional experience and expert's guidance lead the investigator to design the methodology.

The objectives of the study were,

1. To assess the level of postpartum blue among control and experimental groups of post cesarean section mothers before and after emotional freedom technique.
2. To compare the effectiveness of emotional freedom technique on postpartum blue among control and experimental groups of post cesarean section mothers.
3. To find out the association between posttest scores of postpartum blue among control and experimental groups of post cesarean section mothers with their demographic variables.

Hypothesis

H_1: There is a significant level of postpartum blue among control and experimental groups of post cesarean section mothers before and after emotional freedom technique.

H_2: There is a significant effectiveness of emotional freedom technique on postpartum blue among post cesarean section mother in experimental group than control group.

H_3: There is a significant association between post test scores of postpartum blue among experimental and control groups of post cesarean section mothers with their demographic variables.

A review of related literature enabled the researcher to develop the conceptual frame work, tools and methodology which is the corner stone of the study. Literature review done for the present study was organized under the following headings

1) Studies related to postpartum blue,

2) Studies related to emotional freedom technique,

3) Studies related to emotional freedom technique on postpartum blue.

The investigator developed the conceptual framework based on **Mercer's maternal role attainment theory**. The research design adopted for the study was quasi experimental study. Setting chosen to conduct the study was TPN Hospital and Government Head Quarters Hospital, Erode. The target population in the study was post caesarean section mothers with postpartum blue.

The reliability of the questionnaire was tested by implementing the tool on Post cesarean section mothers with postpartum blue admitted at TPN hospital, Erode, which is the same sample area. Split half method (spearman brown formula) was used to test the reliability of the tool and the tool was found to be reliable. **(r^1= 0.82).**

The main study was conducted in TPN Hospital and Government Head Quarters Hospital, Erode. The sample size was 30 post caesarean section mothers were selected by using purposive sampling method among those who fulfill the sampling criteria. Data were gathered through Modified Likert, Am I blue? Assessment scale on postpartum blue.The data gathered are analyzed by descriptive and inferential statistical method and interpretation is made on the basis of the objectives of the study.

Findings

The findings are summarized as below

I. Description of sample characteristics of control and experimental groups shows that

In control group,

- ✓ Most (60%) of the mothers were in the age group of 24-29 years.
- ✓ Majority (53%) of the mothers had no formal education.
- ✓ 67% of mothers were in the monthly income of Rs 3000 to Rs 6000.
- ✓ Most (80%) of them living in nuclear family.
- ✓ Most (60%) of mothers had arranged marriage.
- ✓ Majority (73%) of mothers had husband is the support of family members.
- ✓ Most (53%) of mothers had no family history of mental illness.
- ✓ Majority (60%) of mothers had no complication during pregnancy.

- ✓ Most (67%) of mothers had no previous bad obstetrical history.
- ✓ Most (87%) of mothers had emergency caesarean section.
- ✓ Most (87%) of mothers had no past history of mental illness.

In experimental group,

- ✓ Most (54%) of the mothers were in the age group of 24-29 years.
- ✓ Majority (27%) of the mothers had degree education.
- ✓ 47% of mothers were in the income group of Rs 7000 - Rs 10,000 and Rs 10,000 and above.
- ✓ Most (73%) of them living in nuclear family.
- ✓ Most (53%) of mothers had arranged marriage.
- ✓ Majority (73%) of mothers had husband is the support of family members.
- ✓ Most (73%) of mothers had no family history of mental illness.
- ✓ Majority (87%) of mothers had no complication during pregnancy.
- ✓ Most (67%) of mothers had no previous bad obstetrical history.
- ✓ Most (87%) of mothers had emergency caesarean section.
- ✓ Most (93%) of mothers had no past history of mental illness.

II. To assess the postpartum blues among control and experimental group of post caesarean section mothers before and after emotional freedom technique.

a) control group

- Pretest majority (93%) of mothers were had severe postpartum blue and 7% of mothers were had moderate postpartum blue
- Posttest majority (53%) of mothers were had moderate blue and 47% of mothers were had mild blue.

b) Experimental group

- Pretest majority (67%) of mothers were had severe postpartum blue and 33% of mothers had moderate blue.
- Posttest most (93%) of mothers were had mild blue. and 7% of mothers were had moderate blue.

c) Control and experimental group post test scores of postpartum blue among post caesarean section mothers depicts that,

- In control and experimental group majority of them were in moderate (53% and 93%) and mild (47% and 7%) postpartum blue respectively.

III. 't' VALUE

1. The Paired't' test value for postpartum blue in control group was 12.3.
2. The Paired't' test value for postpartum blue in experimental group was 20.6.
3. The Unpaired't' value for postpartum blue in control and experimental group post test scores was 5.59.

IV. Overall mean, SD, mean percentage and mean difference for pretest and post test scores of control and experimental group.

- ★ Overall mean and SD for pretest in control group was 47± 7, which is 78%.
- ★ Overall mean and SD for posttest in control group was 21± 6, which is 35%.
- ★ Overall mean difference for postpartum blue in control group was 43%.
- ★ Overall mean and SD for pretest in experimental group was 43± 7, which is 72%.
- ★ Overall mean and SD for posttest in experimental group was 12± 4, which is 20%.
- ★ Overall mean difference for postpartum blue in experimental group was 52%.
- ★ Overall mean difference in post test scores of control and experimental group was 15%.

V. To find out the association between post test scores of postpartum blue among control and experimental group of post caesarean section mothers with their demographic variables

Chi square was calculated to find out the association between the post test scores of experimental group with their demographic variables

- ➢ Chi square value for age of the mother was 0.9 (P> 0.05)
- ➢ Chi square value for education of the mother was 7 (P> 0.05)

- Chi square value for monthly income was 16 ($P < 0.05$)
- Chi square value for type of family was 0.3 ($P > 0.05$)
- Chi square value for type of marriage was 1 ($P > 0.05$)
- Chi square value for support of the family members was 16 ($P < 0.05$)
- Chi square value for family history of mental illness was 0.38 ($P > 0.05$)
- Chi square value for complication during pregnancy was 0.16 ($P > 0.05$)
- Chi square value for previous bad obstetrical history was 0.54 ($P > 0.05$)
- Chi square value for type of caesarean section was 0.16 ($P > 0.05$)
- Chi square value for past history of mental illness was 0.07 ($P > 0.05$)

CONCLUSION

From the findings of the study it can be concluded that,

- The highest percentages of mothers were in the age group of 24 - 29 years.
- Most of them were had no formal education in control group and most of the mothers had degree education in experimental group,
- Most of mothers were in the monthly income of Rs 3000 to Rs 6000 in control group, most of mothers were in the monthly income of Rs 7000 – Rs 10000 and Rs 10000 above in experimental group.
- Most of them living in nuclear family.
- Most of mothers had arranged marriage.
- Majority of mothers had husband is the support of family members.

- Most of mothers had no family history of mental illness.
- Majority of mothers had no complication during pregnancy.
- Most of mothers had no previous bad obstetrical history.
- Most of mothers had emergency caesarean section.
- Most of mothers had no past history of mental illness.

- Emotional freedom technique was highly effective on postpartum blue in experimental group.
- Moderate significant effectiveness was found on experimental group than control group post caesarean section mothers in postpartum blue.
- No significant association was observed between the post test scores of control and experimental groups when compared to age, education, type of the family, type of marriage, family history of mental illness, complication during pregnancy, previous bad obstetrical history, type of caesarean section and past history of mental illness, ($P > 0.05$).
- There is a significant association found between the post test scores of control and experimental group when compared to monthly income and support of the family members ($P < 0.05$).

NURSING IMPLICATIONS

Nursing Services

1. The nursing personnel working in hospital can reinforce the health benefits of Emotional freedom technique.
2. This method can be used in various settings.
3. The Emotional freedom technique can be used to reduce the postpartum blue, depression, anxiety, stress, fear and phobias, anger, guilt and shame, low self-esteem and pain.

Nursing Education

1. Nursing educator should educate the nursing professionals about the effectiveness of Emotional freedom technique on postpartum blue of post caesarean section mothers.

2. Nursing educator should influence nursing professionals to review the curriculum of the course in order to include Emotional freedom technique as a part of therapy for postpartum blue.

3. The researcher educates the mothers with postpartum blue to practice the Emotional freedom technique in regular practice to reduce the postpartum blue.

Nursing Research

This study may be issued for further references. Further large scale study can be done as replication to standardize the Emotional freedom technique on postpartum blue.

RECOMMENDATIONS

Based on the findings of the study the following recommendations have been made for the study.

- A large scale study can be carried out to generalize the findings.
- A similar study can be used to compare postpartum depression and postnatal psychosis.
- A similar study can be compared with other alternative therapies like acupressure, yoga and acupuncture.
- Emotional freedom technique can be conducted as antenatal teaching in prevention of postpartum blue.

SUMMARY

This chapter as deal with the summary of the study, major findings, conclusions, implications of the study in nursing field and recommendations for future.

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UNPUBLISHED DESSERTATION

Ponmalar (2011), Conducted a study on effectiveness of guided imagery therapy on postpartum blues among Primi mothers in selected hospital at Coimbatore district.

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APPENDIX- I

LETTER SEEKING PERMISSION FOR CONDUCT STUDY

From

Ms.PandiSelvi. R.
M.Sc. Nursing II Year, Dhanvantri college of Nursing.
Ganapathypuram, No.1, Ranganoor Road,
MuniyapanKovil, Pallakkapalayam (po),
Sankagiri West, Namakkal (Dist).

To.

Dr. HemsaSubramaniyam, MBBS, DGO,
TPN Hospital, Erode.

Through.

The principal,
Dhanvantri College of nursing,
Namakkal (Dist).

Respected madam

Sub: permission to conduct study in TPN Hospital - reg.

I Ms.Pandiselvi.R, II Year M.Sc.(Nursing) student of Dhanvantri college of nursing, Pallakkapalayam as a partial fulfillment of master of science in nursing. I have undertaken the following research study for my dissertation which has to be submitted to the DR.M.G.R Medical University, Chennai during december2011.

The Statement of the problem chosen for my study is **"Effectiveness of emotional freedom technique (EFT) on postpartum blue among post cesarean section mothers at selected hospitals, Erode.**"

I am in need of your help and co – operation to conduct this research study among post cesarean section mothers in your esteemed hospital.

I request your kind office to permit me to collect the data from your hospital and allow me to utilize the needed facilities.

I assure you that my study will not in any way affect the routine work of the hospital nor would it harm study patients subjected for emotional freedom technique.

Kindly do the needful.

Thanking you

Yours faithfully,

Date: 22. 07. 2011

Place: Pallakkapalayam (PANDISELVI.R)

APPENDIX- II

LETTER GRANTING PERMISSION TO CONDUCT STUDY

From

Ms.PandiSelvi. R.
M.Sc. Nursing II Year, Dhanvantri college of Nursing.
Ganapathypuram, No.1, Ranganoor Road,
MuniyapanKovil, Pallakkapalayam (po),
Sankagiri West, Namakkal (Dist).

To.

Dr. HemsaSubramaniyam, MBBS, DGO,
TPN Hospital, Erode.

Through.

The principal,
Dhanvantri College of nursing,
Namakkal (Dist).

Respected madam

Sub: M.Sc. student-regarding data collection for research

I Ms.Pandiselvi.R, II Year M.Sc.(Nursing) student of Dhanvantri college of nursing, Pallakkapalayam as a partial fulfillment of master of science in nursing. he is to conduct a research and submit the dissertation work to the Tamilnadu Dr. M.G.R. Medical University, Chennai.

The Statement of the problem chosen for her study is **"Effectiveness of emotional freedom technique (EFT) on postpartum blue among post cesarean section mothers at selected hospitals, Erode.**"

She is need of your help and co – operation to conduct this research study among post cesarean section mothers in your esteemed hospital.

I request your kind office to permit me to collect the data from your hospital and allow my student to utilize the needed facilities.

I assure you that her study will not in any way affect the routine work of the hospital nor would it harm study patients subjected for emotional freedom technique.

Kindly do the needful.

Thanking you

Yours sincerely,

APPENDIX-III

CERTIFICATE

INDRAJITH YOGA AND NATURE CURE HEALTH CARE CENTRE &
INDRAJITH NATURE CURE HOSPITAL

238/4 KBR Tower (Near Dr.Pari Complex), Karungalpalayam, Erode - 638003, Tamilnadu
Contact : +91 94432 30547, 93459 66869, Email: indrajitherd@gmail.com

Certificate

This is to certify that Mr/Mrs/Miss. **R. PONDISELVI**

D/o, **Ramaiyan** Address **23/12, Susai Complex, KVS Street,**

Alangudi, Pudukkottai (Dt.) - 622 301 He/She has studied

one month **Emotional Freedom Technique (Acupressure)**.

Course Director
Dr.S.BALASUBRAMANIAM, MA.,PGDYN.
(Govt.Regd.Medical Practitioner)

Co-ordinator
Dr.S.ARUMUGAM, MA.,PGDYN.
(Govt.Regd.Medical Practitioner)

APPENDIX- IV

LETTERS SEEKING EXPERTS OPINION ON CONTENT

From

Ms.PandiSelvi. R.
M.Sc. Nursing II Year, Dhanvantri college of Nursing.
Ganapathypuram, No.1, Ranganoor Road,
MuniyapanKovil, Pallakkapalayam (po),
Sankagiri West, Namakkal (Dist).

To.

Through.

The principal,
Dhanvantri college of nursing,
Namakkal (Dist).

Respected sir/madam

Sub: Request for the validation of the tool.

I Ms.Pandiselvi.R, II Year M.Sc.(Nursing) student of Dhanvantri college of nursing, Pallakkapalayam as a partial fulfillment of master of science in nursing. I have undertaken the following research study for my dissertation which has to be submitted to the DR.M.G.R Medical University, Chennai during december2011.

Statement of the problem

"Effectiveness of emotional freedom technique (EFT) on postpartum blue among post cesarean section mothers at selected hospitals, Erode."

To achieve the objectives of the dissertation, I have prepared the following tools:

1. Demographic data.
2. Modified Likert, Am I Blue? Assessment scale (Skillman).

With regard to this, I kindly request you to go through the tool and validate it against the given criteria and render your valuable suggestions.

Thanking you in anticipation.

Yours faithfully,

(PANDISELVI.R)

Enclosure:

1. Demographic data.
2. Modified Likert, Am I Blue? Assessment scale (Skillman).
3. Chapter I & III

APPENDIX-V

CONTENT VALIDITY CERTIFICATE

I hereby certify that I have validated the tool of Ms.Pandiselvi. R. M.sc (Nursing), II year student, Dhanvantri college of nursing, who is under taking dissertation work on **"Effectiveness of emotional freedom technique (EFT) on postpartum blue among post cesarean section mothers at selected hospitals, Erode.**"

Signature of the Expert

Place:

Date: Name and designation

APPENDIX-VI

DATA COLLECTION TOOL

SECTION- A

It consists of demographic characteristics of postnatal mothers.

DEMOGRAPHIC DATA

This section requires some personal information. Each item has few options. Please tell correct answer which is suiting to you.

1. Age of the mother
   a) 18 years – 23 years
   b) 24 years – 29 years
   c) 30 years – 35 yeas

2. Education of the mother
   a) No formal education
   b) Primary education
   c) Secondary education
   d) Higher secondary education
   e) Degree

3. Income (monthly)
   a) Rs 3000 –Rs 6000
   b) Rs 7000 – Rs 10,000
   c) Rs 10.000 and above

4. Type of the family
   a) Nuclear family
   b) Joint family

5. Type of marriage
   a) Arranged marriage
   b) Love marriage

6. Support of the family members
    a) Husband
    b) Mother and father
    c) Mother in law and father in law
    d) Sisters and brothers
    e) None

7. Family history of mental illness
    a) Yes
    b) No

8. Complication during pregnancy
    a) Present
    b) Absent

9. Previous bad obstetrical History
    a) Abortion
    b) Still birth
    c) No

10. Type of caesarean section
    a) Planned
    b) Emergency

11. Past history of mental illness.
    a) Yes
    b) No

SECTION- B

POSTNATAL BLUE ASSESSMENT SCALE

Modified Likert, Am I blue? Assessment scale (It is a scale developed by Skillman).

SL.NO	PARTICULARS	Present (2)	Occasionally Present (1)	Not Present (0)
1	Anger			
2	Anxiety attacks: periods of very strong fear, shortness of breath, rapid heartbeat			
3	Feeling unable to cope with anything			
4	Disturbing memories of the birth experience.			
5	Problems in a relationship with a family member and friends.			
6	Crying spells			
7	Less interest in your personal appearance			
8	Less motivation – less energy or interest in accomplishing goals			
9	Depression			
10	Fatigue – feeling tired or exhausted.			
11	Fear of harming yourself or your baby.			
12	Loss of your sense of humor			
13	Nervousness and feeling tense.			
14	Feelings of guilt.			
15	Feelings of panic.			
16	Feelings of alone or lonely, without support of others.			
17	Feeling no love or not enough love for the baby.			
18	Feeling forgetful, distracted, and absentminded – having trouble in concentrating.			
19	Frustration.			

20	Hopelessness.			
21	Insomnia			
22	Feeling irritable a lot of the time			
23	Feeling of numbness and detachment			
24	Loss of self – respect or confidence			
25	Feeling confused, uncertain.			
26	Mood swings – your moods and emotions change all the time.			
27	Obsessive thoughts – ideas or feelings you can't stop from repeating in your mind.			
28	Odd or frightening thoughts - thoughts or images that scare you or that you can't control			
29	Thoughts of suicide, feeling like want die.			
30	Feeling sad, or unhappy			
	TOTAL			

The total score was 60

1-20-Mild blues 21-40-Moderated blues 41-60-Severe

Scoring Procedure

The level of symptoms was graded in 3 categories. They are **"Mild", "Moderate" and "Severe"**.

Level of symptoms based on percentage of scores

Level of postpartum blue	**Actual Score**	**Percentage (%)**
Mild	1 – 20	Less than 34%
Moderate	21 – 40	35 to 67%
Severe	41 – 60	68 to100%

APPENDIX-VII

EMOTIONAL FREEDOM TECHNIQUES

INTRODUCTION

Emotional Freedom Techniques (EFT) is a form of alternative psychotherapy that purports to manipulate the body's energy field by tapping on acupuncture points while a specific traumatic memory is focused on, in order to alleviate a psychological problem. ....

EFT is an emotional balancing therapy that works by gently tapping on acupressure points on the face, hands and torso whilst focusing on the specific issues, allowing them to come quickly to the surface and then released painlessly without any side-effects.

DEFINITION

Emotional Freedom Techniques (EFT) is a form of alternativepsychotherapy that uses tapping on acupuncture points while a patient focuses on a specific traumatic memory. This is said to manipulate an energy field practitioners associate with the human body.

Emotional Freedom Techniques (EFT) or "emotional acupuncture" is an elegantly simple yet powerful way of releasing the mental, physical and emotional issues related to postnatal blue.

PURPOSE

- Provide relief and comfort
- Helps to remove negative emotions

- Reduce food cravings
- Reduce or eliminate pain
- Helps to develop positive attitude
- Eliminate anxiety and stress
- EFT has been used to many emotional physical and spiritual problem such as,
    - Stress
    - Anxiety
    - Fears and phobias
    - Anger
    - Depression
    - Guilt and shame
    - Low self esteem
    - Pain

GENERAL RULES

1. Use several fingers to tap on each point, so you do not miss anything. Like using a big hammer, you will not miss the target.
2. Tap gently but firmly, at about this speed, maybe 10 times at any one point, in 2 seconds.
3. Most of the EFT tapping points is bilateral, meaning they are located on the right and left side of the body. You do not have to tap on both sides, you

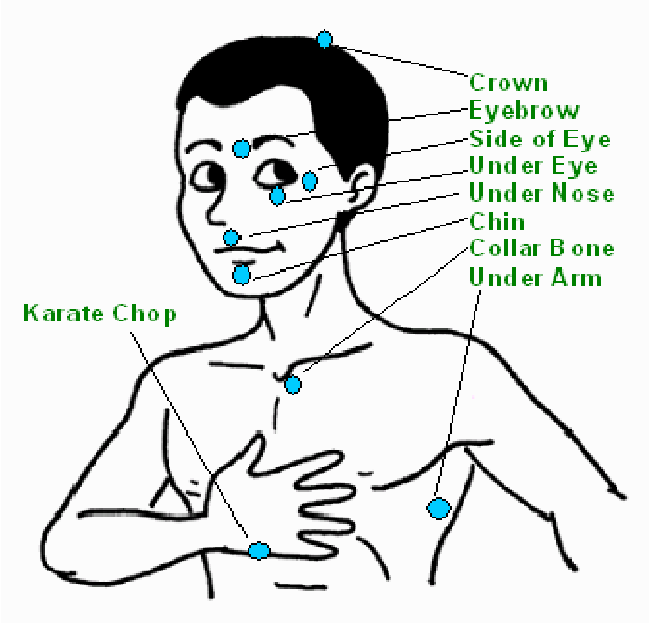
can tap on whatever side is comfortable to use. You can tap only on the left side, only on the right side, you can switch between right and left, or you can even tap on both sides at the same time. It doesn't seem to make much difference, so long as you tap on at least one of each of the EFT tapping points.

4. Tap firmly, but never so much to hurt yourself.
5. Remove your eyeglasses, watch and other jewelry that might interfere with reaching the EFT tapping points.
6. If you have come to a very large issue, and you note a sense of great stress release, continue stimulating the EFT tapping points in any pattern you choose. You can simply just tap everything a second time around; you can end repeated rounds at any point, without having continue to the customary stopping point. You can leave out points, or perhaps go back and forth between your favorite 2-3 EFT tapping points. Since all the meridians are interconnected, any point you tap on delivers and resonates energy throughout your body. Do not be concerned you are using the EFT tapping points incorrectly. Feel comfortable to experiment use the EFT tapping points where your intuition takes you

EFT POINTS

EFT shows us how to "de-energize" these patterns. It's done through simple tapping on certain acupuncture points while holding the unwanted feeling or thought in awareness. It's like tapping the side of a tray of sand that has a pattern drawn in it. Say the pattern represents a fearful reaction to a certain thought or experience. As you tap the sides of the tray, the pattern fades into the rest of the sand to leave a smooth, even surface. No pattern, no fear.

The focal objective of EFT is to achieve equilibrium of energies that flow inside the body, by stimulating them through fingertip tapping. It is commonly considered as an acupuncture of sorts because certain pressure points in the body are being directed by the tapping. While in acupuncture needles are pierced through the skin, in EFT tapping of fingers is employed.



BODY POINTS	PROCEDURE
Karate chop point	It is the first EFT tapping point you will use to start a round of EFT. It is located on the outer edge of the hand just below the knuckle of the little finger. Not on the side of the knuckle, but below it. With the fingers of one hand, tap on the fleshy side of your other hand, where you would break a brick if you were a karate expert. This is commonly called the karate chop point.

Inner eye brow	Tap with 2- 4 fingertips on the bone where the eyebrows start. You can tap here with one or both hands. Using all 4 fingertips lets you cover both sides with one hand.
Side of eye	Tap gently on the bone just outside the eye. Use 2 fingertips you can tap on the side only, or use both hands and tap on both sides.
Under eye	Tap gently; using 2 fingertips on the bone just under the eye, you can tap on one or both sides.
Under nose	Tap right the center, using 2 or 3 fingertips. Use just one hand, as the meridian that ends here is right in the center.
Chin	Tap right in the center, using 2 or 3 fingertips. Use just one hand, as the meridian that ends here is right in the center.
Collar bone	Find the notch where the collar bones join in the center of the chest. Drop down about an inch and out to both sides 1- 2 inches. Tap firmly with 3 fingertips, to cover a broader area.
Under arm	This point is around 4 inches under the armpit, on the side of the body you can tap with both hands.
Wrist	It is located on the soft tissue on the inner part or palm-side of both wrists, where the skin folds when the wrist are bent. (Inside of both wrists) Two ways to stimulate this EFT tapping point: Tap either the right or left wrist with 3-4 fingers of the opposite hand, or simply tap the inner part of your two wrists together.
Crown	Use all 5 fingers of one hand and tap around in a circle at the top of the head

Ask the mother to verbalize her thoughts during tapping session like “even though I feel this (mothers problems), I deeply and completely accept myself”.

AFTER CARE

- ❖ Keep the mother in a comfortable position.
- ❖ Ask the mother to take deep breath and relax.
- ❖ Assure the mother with positive thoughts.
- ❖ Encourage the mother to practice EFT.

APPENDIX – VIII

LIST OF EXPERTS

1. **MRS. D. GLORY SURAMANJARY, M.sc (N),**

   Associate Professor,

   Bhishop's College of Nursing,

   Dharapuram.

2. **PROF. MRS. S. RENUKA, MSc (N),**

   HOD, OBG Nursing Department,

   KMCH College of Nursing,

   Coimbatore.

3. **MRS. GOKILAVANI, MSc (N),**

   Professor,

   Vivekananda college of Nursing,

   Thiruchengode.

4. **DR. HAMSA SUBRAMANIAM, MBBS, DGO,**

   TPN Hospital,

   Erode.

5. **DR. V. MARUTHARAJ, BNYS, MSc (PSY),**

   Department of Naturopathy and yoga,

   Lotus Hospital,

   Erode.

6. MR. N. SENTHIL KUMAR, MA (psychology)

Clinical psychologist,

Government Head Quarters Hospital,

Erode.

7. DR. BALASUBRAMANIYAN,

Yoga and Naturopathy,

Indrajith Yoga and Nature cure Health care Centre,

Erode.

8. Mr.DHANAPAL,

Statistician,

Dhanvantri College of Nursing.

APPENDIX-IX

PHOTOGRAPH

The researcher performing Emotional Freedom Technique on mother with postpartum blue

The researcher evaluating postpartum blue after Emotional Freedom Technique

ABSTRACT

Background:the Postpartum blue occurs in 10 to 15 out of every 100 women who have a cesarean delivery. The postpartum blues is the main cause to postpartum depression and psychosis. If the postpartum blues is identified earlier and treated properly the severe complications of postpartum psychosis and depression can be prevented.EFT is one of the complimentary therapies to cure the many of the symptoms of postpartum blue.**Objectives:** to assess the effectiveness of emotional freedom technique on postpartum blue among post caesarean section mothers **Design:**quasi experimental design where pretest and posttest with control group design. **Settings:** TPN Hospital and Government Head Quarters Hospital, Erode, Tamilnadu. **Participants:** thirty post caesarean section mothers with Postpartum blue, fulfilling the inclusion criteria were selected by purposive sampling technique. **Selection criteria**: the inclusion criteria included mothers with moderate and severe postpartum blue, Primi Para mothers from 3rd postoperative day and any age group. **Methods:** a study was conducted with 30 post caesarean section mothers with postpartum blue. Out of which 15 mothers were experimental group and 15 were control group. Pre and posttest assessment done by using modified Likert Am I Blue? Assessment scale.**Results**: The highest percentage of mothers were in the age group of 24 - 29 years. Most of them were had degree education, monthly income of Rs 7000 – Rs 10000 and Rs 10000 above,Living in nuclear family, arranged marriage, husband is the support of family members, no

family history of mental illness, no complication during pregnancy, no previous bad obstetrical history, emergency caesarean section, and no past history of mental illness. The Paired't' test value for experimental group was 20.6 and control group was 12.3. The Unpaired't' value was 5.59.Overall mean difference in control and experimental group was 15%.No significant association was observed between the post test scores of control and experimental group when compared to age, education, type of the family, type of marriage, family history of mental illness, complication during pregnancy, previous bad obstetrical history, type of caesarean section and past history of mental illness, ($P > 0.05$).There is a significant association found between the post test scores of experimental group when compared to monthly income and support of the family members ($P < 0.05$). **Conclusion:** Emotional freedom technique was effective in reducing postpartum blue symptoms.More studies can be done in order to support the emotional freedom technique. **Clinical applications:** Emotional freedom technique can be employed all kind of anxious and depressive situation for all age group as an alternative therapy.